BOSTON PUBLIC LIBRARY
3 9999 08719 656 2

No. 3761.10
13
1924

Missing 110 cannot be supplied
Bnd
1559
1503
3761.10
1924

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON.

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, JANUARY, 1924. No. 1

ACTIVITIES OF THE HEALTH DEPARTMENT FOR THE YEAR 1923 AND PLANS FOR THE YEAR 1924.

Mortality in Boston.

Total Deaths.— The mortality figures for 1923 show the total number of deaths to be somewhat higher than last year, but the death rate is the second lowest in the history of the city.

Tuberculosis.— Deaths from pulmonary tuberculosis were lower than ever before.

Typhoid.— Deaths registered from typhoid fever were not only the lowest ever registered, but produced a rate which is probably lower than any other large city in the United States.

Infants.— Deaths of infants under one year of age were much lower than last year, and produced the second lowest death rate in the history of Boston. It might be well to mention also that approximately 15 per cent of these deaths were of children whose residence is in other cities and towns.

Mothers.— Deaths of mothers from causes incident to childbirth and pregnancy were the lowest ever recorded in Boston.

Diarrhœa and Enteritis.— Deaths from diarrhœa and enteritis in children under two years of age were the lowest ever recorded in Boston.

8812
2

Degenerative Diseases.— Heart disease, cancer, violent deaths and deaths of persons over sixty years of age were the highest ever recorded in the Health Department. Deaths from diabetes and broncho-pneumonia likewise continued high, while deaths from alcoholism were the highest on record since 1918.

	Year.		
	1923.	1922.	1921.
Number of deaths	11,506	11,423	10,220
Death rate	14.93	14.95	13.49
Number of infant deaths	1,569	1,720	1,499
Infant mortality rate	83.32	92.71	77.27
Number of live births	18,830	18,552	19,397
Birth rate	24.44	24.28	25.60
Deaths of mothers from causes incident to childbirth	136	156	149
Death rate of mothers per 1,000 live and still births	7.00	8.1	7.4
Deaths of persons sixty years and over	4,267	4,066	3,627
Number of Deaths From			
Heart disease	1,876	1,765	1,462
Nephritis	646	646	543
Cerebral hemorrhage	705	644	636
Arterio sclerosis	403	498	489
Cancer (all sites)	1,151	1,123	1,056
Diarrhœa and enteritis (under two years)	148	216	207
Diabetes mellitus	187	222	149
Accidental and violent deaths	798	797	669
Alcoholism	169	117	70
Broncho-pneumonia	677	601	426

Cases and Deaths, Reportable Diseases.

	1923.		1922.		1921.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Anterior poliomyelitis	48	10	49	11	51	12
Diphtheria	3,257	173	2,992	143	2,992	148
Scarlet fever	3,207	58	1,793	45	1,999	53
Measles	5,122	57	5,356	46	3,396	38
Lobar pneumonia	1,311	635	1,391	669	1,098	467
Pulmonary tuberculosis	1,680	677	1,993	724	2,177	760
Influenza	375	97	1,887	66	148	22
Cerebrospinal meningitis	35	22	24	11	54	28
Whooping cough	2,041	109	1,567	84	689	33
Typhoid fever	120	10	116	11	142	24

mlcm
aug 11 1923

Medical Inspection.

An unusual feature of the prevalence of communicable diseases generally in Boston, during January, was the decreased number of reported cases of chicken pox and measles. These cases usually do not approach a peak until the spring months, and especially is this true with respect to measles.

Influenza and Lobar Pneumonia.— From reports received from physicians of Boston it appeared that during the month of January a severe infection of the respiratory tract accompanied by fever, marked prostration and other constitutional symptoms was prevalent throughout the city. Whether this infection was attributed to influenza, the grippe or a bad cold apparently depended entirely upon the individual physicians in attendance upon the patients; but at any rate there was a noticeable increase in the number of cases of influenza and pneumonia reported, with consequent increased numbers of deaths from these diseases. Pneumonia, however, both broncho and lobar, though likewise prevalent, appeared to have existed independently of this so-called "grippe," and investigation of the cases of pneumonia resulted in the information that deaths therefrom occurred for the most part among persons weakened by intercurrent diseases. A fact of general significance in connection with communicable diseases during this period was that the spread of all such diseases was favored by the crowding of people together, poor ventilation of homes and poor isolation of ill persons in families, as a direct result of shortage of fuel. Reported cases of these respiratory diseases, as influenza and pneumonia, decreased during the two months that followed. These cases appeared in the usual small numbers during the months that followed until the latter part of October, in November and in December, when, in spite of the mildness of these winters months, 304 cases and 106 deaths were reported from the first week of October till the last week of December, from lobar pneumonia alone.

Diphtheria.— The lowest number of cases reported for any one week in 1923 was 39, which occurred in the week ending July 28, when 2 deaths also occurred from this disease. The highest number of cases of diphtheria was reported for the week ending October 27, 1923, when 101 cases were reported, during which week there were also 2 deaths recorded. The high weeks other than above appeared on January 27, with 96 cases; October 20, with 86 cases; November 27, with 93 cases, and December 15, with 88 cases. The last eighteen weeks of the year recorded an average of 68 cases a week from this disease — a total of 1,232 being reported since the first of September, during which period, also, 63 total deaths were recorded. In October, 1923, a survey of the diphtheria situation showed that there were

159 clinical cases and 151 bacteriological cases reported, indicating that although the morbidity rate was high, practically 50 per cent of the total number were bacteriological or positive culture cases.

Scarlet Fever.— The last six weeks of the year appeared to be the period in which the greatest comparative number of cases of this disease occurred, with 548 cases being reported, as may be indicated by the fact that only 609 cases were reported during the 20 weeks immediately preceding. The first half of the year, however, showed 2,009 total cases on record,— a much larger number than for the latter half of the year,— the average number for each of the 26 weeks being 77 cases, although this average was in only one instance greater than the number of cases recorded for the last 6 high weeks of the year. In spite of the high number of cases for the last 6 weeks, there were but 6 deaths recorded from this disease, as against 11 deaths for the preceding 20 weeks, and 41 for the first 26 weeks of the year.

Measles.— The first 26 weeks of the year recorded almost five times as many cases of measles as did the last 26 weeks, the comparative figures being 4,001 as against 834 cases. The average number for each week during the first half of the year was 153 cases as against 32 for the latter half. A noticeable feature of the reporting of this disease was the fact that the week ending June 30 showed 110 cases reported, and the following week only 67, from which point until the week ending October 13 there was a general decrease, with small numbers of cases being reported, until the low mark of 10 cases was reached in that week. Twenty-five cases occurred the next week, and again a general increase appeared until the peak of 57 was reached during the last week of the year. Forty-six deaths were recorded during the first half of the year, and only 11 during the latter half, a decidedly low mortality rate for the year considering the total number of cases of the disease — about one death to every 100 cases reported.

Pulmonary Tuberculosis.— There were 1,680 cases of pulmonary tuberculosis reported during the year, and 677 deaths; and 338 cases of other forms of tuberculosis, with 114 deaths.

Typhoid Fever.— One hundred twenty cases of this disease were reported during the year, with 10 deaths, the latter half of the year recording more than twice the number of cases as the first half, which is only to be expected in view of the fact that vacation periods among the people of Boston usually take place from the month of June onward. It would appear that in spite of repeated warnings from official and non-official sources, vacationists still neglect to seek a place of vacation that has the first requisite of a good location, that of a pure and safe water supply.

Whooping Cough.— The first six months of the year recorded practically the entire number of cases of this disease reported for the whole year, there being 1,808 of the total number of 2,041 cases reported during this period. There were 109 deaths for the year, and 102 of these were recorded during the first six months. There seemed to be wide fluctuations in this disease, too, during the heavy period the first half of the year, as, for instance, in the week ending January 27, 82 cases appeared, and the next week 113 cases occurred, 108 the next week, and a decrease of 78 cases in the succeeding week. Again in the week ending March 3, 84 cases were reported, 125 the next week, and a decrease to 77 the following week, with an increase to 115 in the week succeeding. The fluctuations during the balance of this period did not appear so noticeable. There appears no valid reason for this large difference between the first half and latter half of the year 1923, although it is recorded that during the last six months of 1922 the largest numbers of cases of this disease for that year were reported, and it is believed that early 1923 saw the disease still in its highly infectious stage and required that amount of time to spend itself, taking its regrettable toll of 109 deaths in its wake. Experiments were conducted by the Floating Hospital in 1923 with a new form of treatment of whooping cough, and while its efficacy has not been absolutely demonstrated the results have been such as to encourage further experiments.

Typhus Fever.— One case of this disease was reported from the wards of a Boston hospital in April, and close observation maintained over contacts.

Venereal Diseases.— In March, 1923, a change was made in the method of handling recalcitrant cases of venereal diseases reported to the Boston Health Department by the State Department of Public Health. These cases were originally first turned over to medical inspectors for investigation, and in the event of his inability to obtain some definite history of a case a special investigator was assigned to the case. The new procedure, still in effect, requires all such cases to be first placed in the hands of a special investigator for report, and if he then requires assistance in his inquiries the medical inspectors are called upon. This practice seems to obtain better results in the matter of checking up the activities with respect to treatment of those individuals who are unfortunate enough to have contracted one of these diseases, and who subsequently are careless enough to neglect proper and regular treatment until cured, or until danger of infection to others has passed.

Transportation of Communicable Diseases.— In the early part of 1923 it was observed that there was a practical danger of the spread of communicable diseases in the city because of the use of

street cars and taxicabs for the transportation of cases of these diseases from home to hospital and from hospital to home. It was discovered that the use of these means of conveyance was in some instances sanctioned by attending physicians and by hospitals. The increased use of these means of transportation with consequent danger to the public through the possible spread of the diseases demanded attention by the Health Department. The co-operation of the taxicab companies was secured, but to solve the problem of removal of such patients from hospitals and dispensaries to homes, the department was obliged to assume the task of removal itself, with a resultant increased demand on the transportation facilities of the department.

Epidemiology.

Special epidemiological typhoid surveys have been made by the medical inspectors, and it is most pleasing to report that the Massachusetts Department of Public Health has publicly complimented our medical inspectors' work in connection with the undertaking.

A statistical study was made of the number of clinical *versus* bacteriological cases of diphtheria, and the credit for this important piece of work is given entirely to the medical inspectors and the nurses attached to this division, who have responded in a very efficient manner to the request for the culturing of contacts in frank case families.

The relatively large numbers of cases of diphtheria during the year warranted the continuance in operation of the efforts of the department to immunize all those susceptible to infection from this disease by the administration of Schick toxin-antitoxin. The corps of nurses and physicians employed by the department continued their work in this connection throughout the year, and by a rearrangement of personnel within the medical division were made available for other work on isolation and supervision of communicable diseases, generally, also paying especial attention, however, to Schick activities when occasion demanded.

The enthusiastic demand for the continuance of the readings of scientific papers initiated by the Schick staff last year has resulted in a very elaborate 1923–24 program. Thirty speakers, all experts, have volunteered to function during 1923 and 1924.

Repairs on the detention hospital on Southampton street under the control of the Health Department were practically completed during early 1923, and a wonderful improvement has been made. For the first time in many years the Health Department found itself in a position to meet an emergency with some regard for present standards bearing on protection of the public health.

Child Hygiene Division.

In June, 1923, there was reinaugurated within the Health Department a Child Hygiene Division as a separate function. Heretofore, since 1915, the work of child welfare supervision had been conducted in connection with communicable disease activities generally, under the deputy commissioner in charge of the Medical Division. The former chief medical inspector of the department was promoted to be deputy commissioner in charge of this new division, and part of the nurses formerly in the medical division were assigned to duty under his charge to devote their time exclusively to child welfare activities. A feature of the new service during the latter part of the year was the conducting of a baby clinic in one of the municipal buildings of the city, where those babies whose mothers did not receive the benefits of the examinations of babies conducted at the Health Show held in October were given examinations by recognized experts in children's diseases and in standards for normal health development of children. The successes obtained at this clinic warrant the continuance of such clinics in the year to come, and it is expected similar successes will be met with.

Health Unit.

The dental clinic established at the Health Unit, which has been in operation at 17 Blossom street since 1917, has been a tremendous success. The Forsyth Dental Infirmary, under an arrangement entered into with the Boston Health Department, has furnished dentists and dental hygienists for this very important work, and the interest taken in it by the residents of the district is gratifying to the highest degree. The institution of a similar clinic is one of the features of the new Health Unit to be established in the North End section of Boston through the public-spirited generosity of the late George Robert White. In 1923, also, money was provided through private subscription for the maintenance at the Unit of a nutrition clinic primarily for the Jewish people.

Food Inspection.

Licenses.— In January the license of a dealer in wood alcohol was suspended for violation of the law relative to proper marking and labeling of containers. This drastic procedure was rendered necessary in spite of the economic aspect involved, so that danger to the public through the carelessness or neglect of such dealers might not arise.

In July the license of a manufacturer of nonalcoholic beverages was revoked after hearing on account of the use of saccharin in the

manufacture of the product. A conference of all such licensees had but recently been held, impressing on manufacturers the necessity for compliance with the law in all respects with reference to their product. The use of saccharin in a beverage that is extensively used is decidedly injurious to health, and the department endeavors to maintain the standards of requirement which the law prescribes in such matters.

"Rot" and "Spot" Egg Business.— Two inspectors were specially detailed in February to visit all wholesale dealers in eggs in the central district to ascertain the degree of compliance with the regulation covering the handling of "rot" and "spot" eggs. This regulation requires the placing of such eggs in a galvanized container suitably marked, and the denaturing of the eggs with a 5 per cent carbolic solution after thorough smashing. Fortunately the inspection showed that there was general compliance with the regulation, and this fact is a source of gratification to the department.

Bakery Inspection.— The regular inspection of all bakeries was made in April in accordance with the state bakery law, and conditions ound generally satisfactory. Where isolated instances of laxity or neglect was evidenced, a general cleaning up was required and found to be sufficient. A similar inspection was made in October, and in no single instance was it necessary to issue a closing order to insure compliance with regulations and requirements.

Condemnations of Foodstuffs.— Early in May a shipment of 336 crates of celery was received from Florida which showed upon examination a dangerous amount of spray which had been used apparently to overcome worms found in large numbers on the vegetable. The shipment was seized and condemned.

Two fires which occurred in early 1923 in the wholesale district on State street, within a short time of each other, damaged huge quantities of foodstuffs stored there; 120 tons of nuts were condemned, although 60 tons were permitted to be shipped out of the state for mechanical purposes with the consent of the federal authorities; 78,000 pounds of miscellaneous canned goods, cereals and groceries were also condemned.

In May, also, the Federal Bureau of Chemistry asked the Boston Health Department to hold a car of oranges shipped from Florida alleged to be "dry-stem" oranges, the car in question having been shipped from Maryland after "Hold" tags had been placed on it by the Maryland State Board of Health. The car in question was found in South Boston and held up. Samples were taken of the oranges and the so-called "dry-stem" condition found. This is a condition which leaves the outward appearance of the fruit normal but upon pressing down the stem end firmly, crunching of the dry pulp cells is audible

under pressure. The dryness of the pulp begins at the stem and extends for various distances through the orange.

Unexpected severe heat during the first week of June caused a doubling of the regular market inspection force. In three days more than two tons of veal and large quantities of vegetables were found in a condition unfit for food and condemned. Later in the same month over 10,000 pounds of veal were seized, and 250 pounds of lobster were also seized during this month because they were boiled in a dead or dying condition.

In July a truckload of tonic arriving in Boston from Chelsea was inspected at its first stopping point, and on account of the lack of labels on the bottles, the weight and nature of the contents and evidence of contamination, the entire load was dumped after examination.

Two thousand pounds of beef taken in barrels from which they were to be used for the manufacture of sausages were condemned because the meat was tainted and gassed.

Two thousand boxes of 100 ice cream cones each were discovered by a food inspector who had previously been instrumental in the ultimate condemnation of some three million ice cream cones in the hands of a Roxbury firm. A large number of these cones were condemned as soon as the discovery was made upon arrival here from Maine because they were found to be extremely rancid.

In August another large consignment of ice cream cones coming from a jobber in Baltimore, Md., were similarly condemned.

Selling of Live Poultry.— The attention of the department has been directed for some time prior to September toward certain dealers in East Boston who were believed to be selling live poultry from vehicles, the purchasers then taking the poultry home to kill. As a result of inspection in this district six dealers were prosecuted in the local court, found guilty and paid small fines.

Market Inspection.— During the holiday season six food inspectors were assigned to cover the market district, and few instances of sales of turkeys unfit for food were brought to their attention. The market was patronized by large numbers, as an overloaded market followed the shipment of turkeys from the North, South and West, which sent the prices down to about one half the level of 1922, and resulted in active buying.

Sanitary Inspection.

Separation of Refuse Matter.— A great deal of trouble was experienced in the spring because of failure to properly separate garbage and ashes collected for deposit on the city dumps, particularly in the Hyde Park section. Conferences were held with the local contractor and the Public Works Department, and the con-

tractor was impressed with the necessity for bettering conditions on the dumps under his control. The solution of this great source of nuisance seems to be the furtherance of the plan already advanced by his Honor the Mayor with reference to the incineration of all such material collected, thus eliminating the necessity for separating, and preventing the existance of dump nuisances.

In the months of June and July the work of mosquito suppression was carried on. In June, 426,000 square feet of area were sprayed throughout the city, 14 barrels of oil being used in the process. In July, 12½ barrels of oil were consumed in spraying 575,000 square feet of area.

The annual spring campaign to insure the cleanliness of alleys, yards and vacant lots was conducted this year. Careless tenants of property seem to regard such a general cleaning-up process as an easy way to rid themselves of accumulations of rubbish. It was evidenced in some instances by the practice of tenants abutting on alleys who, immediately after the cleaning up of these alleys by the city, threw rubbish back into the alleys. Unfortunately it was not possible to obtain direct evidence against the actual offenders in all cases, but where such evidence was found the offenders were compelled to clean up the deposits or appear in court.

Laboratory Division.

Routine Examinations.— Over 54,000 routine diagnostic examinations were conducted during the year in the Bacteriological Laboratory of the Health Department. In the latter part of the year none other than these routine examinations were possible, in view of the constantly increasing patronage of the laboratory by the physicians of the city.

Rats.— Co-operation was extended the United States Public Health Service during the year by the Boston Health Department rat-trapping staff in an endeavor to trap as many live rats as possible, so that a determination might be reached as to the flea population of Boston rats.

Floating Baths; Water Analysis.— In May a bacteriological study was made of the water from the Meridian Street and Warren Bridges in co-operation with the plans of the Park Department, City of Boston, which contemplated the re-establishment of floating baths at these places. A report of the study made was given to the Park Department, urging the abandonment of these plans on account of the fact that the water was unfit for bathing.

Swimming Pools.— With the commencement of the warm weather, in April, examinations of the water in swimming pools throughout the city were regularly made, so far as the other demands

upon the laboratory staff permitted, and continued throughout the summer and fall months, averaging about sixty specimens a week, to determine the presence or absence of B. coli or other deleterious organisms.

Ice Cream Examinations.— In April, also, an examination of the supply of ice cream offered to the Boston consumer was made to determine the quality of the cream from a bacteriological standpoint. This is an important phase of bacteriological study, with a view to insuring wholesome ice cream on the market.

Administration.

Personnel; Permanent.— The following permanent appointments were made during the year: Eight nurses; three medical inspectors; four clerks; one chief medical inspector; one sanitary inspector; one matron; one rat catcher; one deputy commissioner, Child Hygiene Division; one constable; one food inspector; two collectors of milk samples; one custodian.

Temporary.— The following temporary appointments were made during the year: Four nurses; one medical inspector; three clerks; one provisional media man; one temporary media man; five matrons of convenience stations; one laborer; one provisional food inspector; one provisional dairy inspector; one hospital helper; one chemist; one provisional bacteriologist.

Services Discontinued.— The services of one nurse were discontinued during the year.

Resignations, Retirements, Transfers.— One nurse resigned her position in the department; one medical inspector was retired under the provisions of the Boston Retirement System; one clerk resigned, and one clerk was transferred to another city department.

Transfers Within the Department.— Two collectors of samples were transferred from duty in the Bureau of Milk Inspection to duty in the Sanitary and Dairy Divisions, respectively; one veterinarian was transferred from duty in the Food Inspection Division to duty in connection with contagious diseases in animals, in the Medical Division, and one veterinarian was transferred from duty in the Abattoir at Brighton to duty as food inspector.

Leaves of Absence.— Two employees of the department were granted leaves of absence during the year on account of military duty, and one medical inspector was granted leave of absence for three months on account of illness.

Appointments Refused.— Two nurses regularly appointed to service in the department refused to accept the positions when requested to report for duty.

Reorganization.— In June, 1923, the Child Hygiene Division

of the Health Department was reinaugurated within the department as a separate function. The chief medical inspector of the Medical Division was promoted, with the approval of the Department of Civil Service and Registration, to be deputy commissioner of this new division. The personnel of this new division was made up by transferring one of the supervising nurses and eleven visiting nurses and one clerk from the Medical Division staff to the staff of the Child Hygiene Division.

In the same month the Bureau of Communicable Diseases was created within the Medical Division, and the epidemiologist of the department placed in charge of the activities of this new service, under the deputy commissioner of the Medical Division.

Publicity; Health Education.— In October of last year the Boston Health Department, in co-operation with the State Department of Health and the National Health Shows, Inc., of Chicago, featured the activities of the Health Department in special exhibits at the Mechanics Building. Features of the exhibits were the operation of the Schick toxin-antitoxin method for the control of diphtheria; a demonstration of work done at the Health Unit on Blossom street, together with a miniature unit, and an architect's model of the proposed new Health Unit in the North End; graphic statistical presentations of mortality and morbidity causes and results; display of bacteriological apparatus in actual operation, showing living germ organisms in perspective under microscope, together with graphic presentations, in color, showing types of germ organisms; photographic exhibition of insanitary conditions found in various sections of the city; a story of "Milk from the Cow to the Consumer" in continuous lantern slide depictions; and demonstration of child hygiene methods to insure healthy, normal development of babies and young children. A special feature of the Boston Health Show was the conducting of a *"Better Baby Contest"* under the supervision of experts in child health standards, with over 700 babies examined, classified, and tabulated by results to determine the nearest counterpart of the perfect baby. Prizes were given to the mothers of the winning babies in the contest.

Conventions.— The American Public Health Association met in annual convention in October, 1923, in Boston, and were received by the Mayor in an address of welcome. The local committee on arrangements consisted of the Boston Health Commissioner, the Commissioner of Public Health of the Commonwealth of Massachusetts and the Professor of Hygiene, Harvard University. Regular business meetings were held during the week, and entertainment was provided for the visiting members and their friends by the local committee. The meeting was considered to be one of the most successful

ever held. A noteworthy feature of the meeting was the election of Dr. Francis X. Mahoney, Health Commissioner, City of Boston, to be vice president of the Association for the ensuing year.

Digest of Health Laws.— The year 1923 saw the completion, in compiled form, of the digest of health laws and related subjects pertaining to the City of Boston, the previous one having been compiled in 1904, including copies from all statutory enactments, city ordinances, and regulations passed by the Health Commissioner and still in force and effect. This reference volume will comprise, when finally printed, about 300 pages, and is arranged so that the regulations and ordinances which relate to the statutory enactments under each of the main subdivisions of the Health Department — Health Commissioner's powers and duties, medical inspection, sanitary inspection, and food inspection — appear as part of each separate subject. It is a work of reference which has long been urgently needed for the proper working of the department, and its final completion and publication will result, it is expected, in a better and more complete understanding of the function and powers of the department by the personnel responsible for the enforcement of them under the administrative direction of the Health Commissioner.

Regulations.— The Health Commissioner in June, on the advice of the Corporation Counsel, ordered an amendment to the existing regulation relative to the breaking and canning of eggs, so that the regulation as it now stands recites the present statutory authority under which the regulation was originally made, instead of the citation as it existed prior to the compilation of the General Laws of the Commonwealth.

On September 11, 1923, as the result of repeated complaints received from residents of a section of the West End district of Boston about nuisances and discomfort caused by the practice of peddlers in storing vegetables in basements of dwellings, the Health Commissioner amended the original regulation of August 3, 1893, prohibiting such storing of fruit without a permit, prescribing the conditions and restrictions upon such a permit.

On November 20, 1923, the Health Commissioner, on the advice of the Corporation Counsel, and after conference with the Mayor and the District Attorney, Suffolk County, amended the regulations relative to the practice of manicuring and massage, and establishments for the giving of vapor baths, adopted originally on April 14, 1920, in so far as concerned the requirements relative to separation of the sexes in massage and vapor bath establishments, and prescribing as a condition of such licenses that no male operators be permitted to work upon a female patient, and no female operators be permitted to work upon a male patient.

The Medical Advisory Board appointed by Mayor Curley in 1922 continued to function during the past year, when six meetings were held in the office of the Health Commissioner, who is most appreciative of this co-operative act on the part of the Mayor, and the counsel of the Board has been helpful.

Summary.

Comments which appear in this statement with reference to communicable disease prevalence include only Boston resident cases, although Boston in 1923, as in other years, has had to provide hospitalization for cases of communicable diseases occurring in persons resident in outlying cities and towns. Where possible, of course, the place of legal settlement was made to reimburse the City of Boston for such care and treatment.

This statement as a whole is not intended to be a detailed account of all of the activities of the Health Department during the year. It is merely intended as a statement preliminary to the publication of the annual report of the department, and so that the people of Boston may gain some idea of the outstanding features of the administration of their official Health Department, and so that an account of the distribution of the municipal appropriation for Health Department purposes — which, incidentally, in 1923, was $535,826.01, inclusive of salaries — may be rendered in this preliminary comprehensive way.

Plans.

There is an absolute necessity for the establishment in the City of Boston, preferably in a centrally located section, such as the Fenway, a central administrative headquarters in a separate building, for the use of the Health Department in its entirety. This will be a decided progressive step if consummated, as it will serve not only the people of the City of Boston to better advantage, but also serve as an administrative directive agency for health activities in Greater Boston whenever this municipal project is brought to successful conclusion.

Outside of the customary regular routine work, the Medical Division proposes to continue actual Schick testing and diphtheria immunization work and public education with reference thereto; to continue to co-operate with an institution which is experimenting with a certain kind of treatment for whooping cough and to undertake investigation as to the prophylactic value of vaccines in whooping cough; to endeavor to work out a practicable method of utilizing a mother's blood serum in preventing or mitigating an attack of measles in young children; to co-operate with the Massachusetts

Medical Society in its special investigation of the efficacy of conventional methods of quarantine procedure in controlling certain communicable diseases; to co-operate with the Harvard Medical School in its special investigation regarding the etiology and epidemiology of infantile paralysis.

Expansion of the activities of the Child Hygiene Division is imperative when it is considered that the report of the Committee on Municipal Health Department Practice of the American Public Health Association, recently issued, contains a statement that Boston and Baltimore were at the time the survey was made the only cities reported upon which were depending entirely upon private agencies for the operation of infant welfare stations. This situation bears out the fact that these child health conference stations are a function of the Health Department. It is expected, therefore, during 1924, to open and operate from four to six conference stations which will be conducted in a manner tended to encourage the greatest co-operative spirit between the private organizations now engaging in this activity and the Health Department. It is believed also that these conferences should be expanded to include pre-school age children in the various clinics, such as nutritional, habit, posture, and the like. The experience in baby conference work which the Child Hygiene Division of the Boston Health Department recently obtained warrants the assumption that the division is quite practically competent to operate in a successful manner. The establishment of these stations should not entail the expense of hiring quarters, as it is believed the municipal buildings in Boston contain adequate facilities for use for such purposes.

In the new Health Unit to be established in the North End section of Boston through the munificence of the late George Robert White, which is expected to be ready for occupancy about October, 1924, the department contemplates instituting a dental clinic on the same principle as the one now operated at the present Health Unit on Blossom street; a nutrition clinic for children, if the present funds are continued in the same manner; a habit clinic and a posture clinic to be conducted in co-operation with and under the auspices of the Department of Mental Hygiene of the Commonwealth of Massachusetts.

It is expected also that plans for another Health Unit will be put under way in 1924, so that the East Boston district of the city will be adequately protected from a health standpoint, and receive the benefits so adequately demonstrated in the operation of the existing Health Unit.

It is expected to continue in 1924 experiments relative to immunization of laboratory animals against the causative germs of glanders

and tuberculosis by the use of normal horse and ox serum. Considerable progress has been made in the successful immunization of laboratory animals against the bacillus causing glanders, and the past work on immunization against the bacillus of tuberculosis is very promising. The object of such experiments is to provide a means of immunity in all animals that are afflicted with these diseases.

It is hoped that it will be possible to establish in the Codman square section of Dorchester, in 1924, another public convenience station for the accommodation of the residents of the district and for transients therein. The need for further establishment of these stations has been noticeable for some time, and if funds can be provided it will be a progressive step in health preservation and sanitary science.

Likewise, if the present expected expenditures contemplated for 1924 in connection with general repairs needed on all existing convenience stations are allowed in the 1924–25 municipal budget for the Health Department, it will be possible to place these present stations in a better sanitary condition, and result in a direct economic saving, if the work of repair is done now.

It is planned in 1924 to continue the survey now being made to eliminate from the records of buildings in Boston supposedly used for stable purposes, those instances where it is found that these buildings are used for other than stable purposes, and to continue the campaign to rid the City of Boston, so far as possible, of all old, dilapidated, unsafe and insanitary building structures which are a menace to the health and safety of the inhabitants of the community in which they are located. It is expected also to keep under further observation the Spectacle Island disposal plant with a view to following the progress that is being made to reduce to a minimum the odors that have heretofore been prevalent in the cities and towns fronting on Boston Harbor, as a result of the processing undertaken at this plant. Considerable experimental research has been conducted in the past year, under the auspices of recognized experts in the matter of odor elimination from such plants by the contractors, but as yet no such progress has been made as to warrant the Health Department in stating that conditions have reached a point now that it can safely consider that the terms of the contract, with reference to the total elimination of odors from processing at this disposal plant, are being complied with. On the contrary, it is quite necessary, from a health standpoint, that this plant be kept under constant observation for some time to come, which will be done.

Another automobile will, it is expected, be added to the service of the Dairy Division for use by the inspectors in making their examination of conditions under which milk and cream consumed in Boston is produced in the country sources of supply throughout New England, and part of Canada and New York. More and better service will be rendered in this connection with the increased facilities for transportation made available through the motorization of this inspection service. In addition to continuing the bacteriological tests of products now conducted in the field by the inspectors, all inspectors will be provided with sediment testers for testing the milk and cream for dirt or other foreign deposits that may be contained therein. This is educational work which the farmers appreciate greatly.

The biggest contemplated change with reference to supervision of the milk supply is the pasteurization of all milk that is sold except from certified tested herds. It is planned to so intensively pursue this procedure that by May 31, 1924, the people of Boston will have 100 per cent pasteurized milk or milk from tuberculin tested cows. At the present time 92 per cent of Boston's milk supply is pasteurized so that there will be very little more to be accomplished to have all milk either pasteurized or tuberculin tested. This is a progressive, up-to-the-minute movement, and can be accomplished with little hardship to the few dealers now doing business.

It is planned to do considerable research work along bacteriological lines in 1924. The thermophillic bacteria content in milk will be studied to determine the organisms that are left after pasteurization which grow at pasteurization temperatures. This is considerably important now in view of the expected intention to secure, if possible, a 100 per cent pasteurized milk to the consumers of Boston. A study of the bacteriological content of milk bottle covers and caps will also be conducted.

The Kahn precipitation test for syphilis will also be studied with a view to checking up the present Wassermann test method for confirmatory diagnosis of this latter method.

It is likewise planned to study the virulence of bacteriological cases of diphtheria by animal inoculation as a matter of research experimentation in 1924, to determine whether persons thus found to be carriers of diphtheria infection are spreaders of the infection to others or not.

The efficiency of intra-dermal tests for diphtheria virulence will also be studied by the whole culture method instead of isolating the diphtheria organisms separately as at present.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during December, 1923. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Bacteria. Thousands in One Cubic Centimeter.
Alden Brothers Company	12.73	3.88	29
Anderson, Oscar A	12.71	3.82	18
Antetomasso, Peter	12.78	3.96	12
R. Barden Creamery Company	13.32	4.22	74
Barron, Clarence W	14.31	4.95	13
Barry, Michael F	13.10	4.15	24
Bemis, H. E	12.33	3.60	24
Bergmann, John H	13.15	4.15	22
Bolio, Mary J	12.78	4.12	256
Bowditch, E. F., Estate	12.38	3.70	18
Brandley, P. J. & T. J	12.95	4.10	14
Brandon Farms Milk Company	12.22	3.73	506
Burns, James	12.43	3.90	19
Casey, James D	12.75	3.95	20
Cashin, James F	12.30	3.65	34
Cedar Hill Farm, Inc	13.36	4.42	12
Chapin, George L	12.57	3.82	29
Childs Brothers	12.35	3.65	21
Clark, Levi	12.49	3.75	25
Cohen, Benjamin	12.71	4.03	12
Corkery, John H	12.37	3.58	47
Creedon & Crowell	12 56	3.83	25
Cummings, F. S., Company	12 12	3.68	14
Cunningham, Paul	12 58	3.85	25
Cusick, William H	12 58	3.82	22
Deerfoot Farms Milk Company	12 78	4.03	13
Denehy, Timothy	11 96	3.35	14
Driscoll, W. B. Company	12 83	3.96	24
Duggan Brothers	12 97	4.20	26
Edgerly, Frank S	12 41	3.65	16
Elm Spring Farm Milk Company	12 30	3.65	79
English, John	12 31	3.75	10
Ferguson, Malcolm D	12 86	4.10	214
Floyd Milk Company	12 32	3.70	22
Fortune & Allen	12 79	4.13	60

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Bacteria, Thousands in One Cubic Centimeter.
Garvin, Charles E.	13 60	4.70	88
Giroux, J. E. & Co.	12 34	3.75	24
Griffin, Joseph L.	12 82	3.98	12
Griffin Brothers	13 16	4.20	24
Gushee, W. S. & C. W.	12.17	3.61	23
Hagar, J. M. & Sons	12.62	3.85	21
Hancock, T. G. & Co	12.58	3.88	20
Herlihy Brothers	12.49	3.86	33
Hickey, Martin J.	13.16	4.35	16
Holden, John E.	12.53	3.75	20
Hood, H. P. & Sons, Inc.	12.34	3.66	37
Jones, W. T. & Co., Inc.	12.70	3.93	21
Kendall Brothers	12.50	3.66	148
Kennedy, R. J. Jr.	12.65	3.95	22
Kingston, Samuel	12.88	3.70	18
Klawa & Co.	13.29	4.26	138
Knapp, George J.	12.27	3.50	406
Kszywoszyi, M.	12.94	3.95	20
Lang, Michael J.	11.98	3.60	15
Larkin, Patrick	13.60	4.55	19
Larsson, Charles	12.48	3.70	10
Lincoln Farms, Inc.	12.71	4.05	29
Lubin, Felix	12.74	3.90	28
Lyndonville Creamery Association	12.69	3.67	98
Magee, Nellie A.	13.06	3.80	14
Manning, Peter E.	12.64	3.85	62
Maple Farm Milk Company	12.24	3.60	48
McAdams, John F.	12.38	3.75	37
McGilvray, Charles D.	12.90	4.00	22
McKernan, John	12.98	4.11	37
Moore, Peter	12.55	3.75	16
Munchbach, George	12.56	3.83	21
Newton & Pope	12.81	4.00	17
Noble, W. F. & Sons	12.50	3.76	16
Rautenberg, Otto G.	12.42	3.71	14
Raycraft, Benjamin F.	13.17	4.45	16
Robinson, Albert J.	12.88	4.06	38
Robinson, James A.	12.56	3.72	19
Runkle, John C.	12.93	4.05	23
Schuster, Adam	12.38	3.75	18

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Bacteria. Thousands in One Cubic Centimeter.
Seven Oaks Dairy Company	12.53	3.73	55
Shick, Jacob	12.37	3.68	102
Smith & Lynch	12.63	3.75	39
Somerset Farms Milk Company	13.19	4.32	12
Sterling Farms Milk Company	12.78	3.90	13
Stone, Howard L	12.64	3.80	29
Stuart, Wallis E	13.08	3.98	14
Sullivan, John D	12.28	3.85	16
Sullivan, John L	12.56	3.83	11
Turner Centre System, Inc	12.47	3.85	38
Upland Farms Milk Company	14.02	4.60	17
Vartanian, Gazar	12.14	3.63	36
Vartanian, Setrag	12.15	3.65	41
Walker-Gordon Laboratory Company	12.69	3.88	11
Ware, George H	12.57	3.93	13
Weiler, E. & Sons	12.55	3.90	30
Werner, Ferdinand	12.39	3.66	43
Wesrwood Farms Milk Company	12.27	3.70	19
White Brothers	12.52	3.80	22
Whiting Milk Companies	12.30	3.73	31
Whittemore, Warner D	12.44	3.80	20
Wiswall, Granville A	12.82	3.80	18
Whittenberg & Co	12.82	3.90	246
Woodland, Charles	12.48	3.70	14

CHAIN STORES MILK.

Name of Dealer.	Supplied by	Solids Per Cent.	Fat Per Cent.	Bacteria Thousands in One Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.38	3.73	49
The Cloverdale Company	Turner Centre System, Inc.,	12.58	3.83	33
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.76	4.06	20
Co-operative Grocery Company.	J. M. Hagar & Sons	12.41	3.66	33
Economy Grocery Company	Turner Centre System	12.37	3.75	24
First National Stores	Turner Centre System	12.53	3.81	24
Morgan Brothers Company	Whiting Milk Companies	12.30	3.73	131
M. O Keefe, Inc	J. M. Hagar & Sons	12.36	3.70	17
Rose Tea Company	H. P. Hood & Sons, Inc., and Whitng Milk Companies.	12.37	3.68	64
M. Winer Company	Hyman Winer	12.64	3.73	24

SUMMARY OF THE WORK, DECEMBER, 1923.

BUREAU OF ADMINISTRATION.

	Dec.	Nov.
Hearings Authorized	3	3
Prosecutions ordered	16	17
Dump applications approved	9	8
disapproved	1	0
Offensive trades approved	0	1
disapproved	1	0
Legal notices	0	3
Lying-In Hospitals certified	1	3
Demolition orders	3	1
Vacate notices	3	1
Day nursery approved	1	0
Special drafts	2	0
Budget transfers	1	3
Regulations amended	0	1
Bids accepted	1	0
Personnel:		
Appointments	2	6
Provisional	2	1
Temporary	0	1
Services terminated	0	1
Leaves of absence	0	1
Promotions	0	6
Resignations	0	1
Convention visits	1	0
Beverage licenses:		
Disapproved	0	1
Suspended	0	1
Restored	0	1
Stable permit revoked	1	1
Refused	1	0

LICENSES, PERMITS, ETC., ISSUED.

	Dec.	Nov.
Burial permits	1,040	986
Milk licenses	122	167
Pedlers' licenses:		
Granted	15	145
Hen licenses granted	13	48
Stable permit finally granted	0	4
Stable permit granted provisionally	0	1
Grease licenses	1	0
Undertaker's license granted	0	1
Undertaker's license revoked	0	1
Denatured alcohol licenses	18	19
Manicure-massage:		
Granted	34	26
Dumps	6	5
Beverage licenses	0	0

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Dec.	Nov.
Visits:		
By medical inspectors,	1,431	2,591
By veterinarian	132	0
By investigator	347	0
By nurses	5,068	4,738
Cases brought to Boston for treatment	66	72
Deaths investigated	18	17
Nurses' activities:		
Schick tests	1,199	3,107
Schick readings	1,721	1,808
Toxin-antoxin injections	4,216	2,530
Medical inspectors' activities:		
Schick tests	1,199	3,107
Schick readings	1,721	1,808
Toxin-antoxin injections	4,216	2,530
Vaccinations	22	26
Vaccination certificates issued	1	6
Antoxin injections	0	47

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, DECEMBER, 1923.

SYPHILIS.

Current cases under investigation December 1, 1923	36
New cases assigned during the month	23
Total	59

Disposition of Cases.

Located:	
Under treatment	1
Placed under treatment	25
Further treatment unnecessary	—
Not located:	
Search abandoned	12
Under investigation December 31, 1923	21
Total	59

GONORRHEA.

Current cases under investigation December 1, 1923	72
New cases assigned during the month	77
Total	149

Disposition of Cases.

Located:	
Under treatment	3
Placed under treatment	19
Further treatment unnecessary	1
Not located:	
Search abandoned	63
Fraudulent use of name	2
Under investigation December 31, 1923	61
Total	149

SUMMARY.

Current cases under investigation December 1, 1923	108
New cases assigned during the month	100
Total	208

Disposition of Cases.

Located:	
Under treatment	4
Placed under treatment	44
Further treatment unnecessary	1
Not located:	
Search abandoned	75
Fraudulent use of name	2
Under investigation December 31, 1923	82
Total	208

Form letters mailed to above patients	88
Form letters unclaimed returned from post office	32
Form letters accepted by patients	56
Venereal disease complaints	8
New cases	9
Under investigation December 1, 1923	8
Disposition of complaints:	
Placed under treatment	4
Unable to locate	4
No evidence of disease	1
Under investigation December 31, 1923	8
Visits by investigators	425

HEALTH UNIT (Blossom Street).

	Dec.	Nov.
Health Department proper:		
Vaccinations	11	27
Vaccination certificates issued	13	13
Antitoxin, anti-typhoid and toxin-antitoxin injections	1,415	364
Children examined for camps and day nurseries	8	11
Visits made by medical inspector	84	71
Dental clinic:		
Number of operations	722	1,194
Number of dismissals	173	205
Number of children treated	438	654
Nutrition Service:		
Number of conferences	3	4
Attendance at conferences	26	44
Number of home visits	152	200
Nose and Throat Service:		
Number of conferences	3	4
Number of examinations	219	262
Adenoids and tonsils operations recommended	56	42
Cases visited by nurses:		
Medical	413	358
Babies	232	451
Visits to children of pre-school age	369	163
Complaints of insanitary conditions	16	17
Visitors:		
Resident	19	27
Nonresident	8	8
General:		
Persons applying for information	577	424
Community Health Association:		
Child Hygiene Division:		
New babies admitted	32	53
Home visits to babies	1,152	1,106
Number of conferences	12	11
Attendance at conferences	392	429
General:		
Visits made by nurses	2,184	2,158

	Dec.	Nov.
Boston Dispensary:		
Calls by district physician	50	56
Boston Sanatorium:		
Calls by nurses in district	807	837
Jewish Welfare Center:		
Nutrition conferences:		
Number	3	0
Attendance	71	0
Nutrition Classes:		
Number	4	5
Attendance	62	121

CHILD HYGIENE DIVISION.

	Dec.
Visits to new cases	707
Visits to old cases	1,075
Wrong address	104
Cases not seen	297
Feedings:	
Breast	922
Formula	255
Formula and Breast	103
Diet	64
Condition:	
Excellent	209
Good	1,083
Fair	48
Sick	38
Defective Conditions Found:	
Ophthalmia	116
Investigations on deaths	129
Ophthalmia cases visited by Health Unit	14
Instructions:	
Weight	258
General	1,066
Formula	233
Miscellaneous Recommendations:	
Family doctor	7
Hospitals	15
Baby Clinic	0
Babies examined at Better Baby Conference	383

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Dec.	Nov.
New reports	3,768	4,439
Stores inspected	4,076	5,148
Sanitary defects remedied	105	171
Complaints at office	47	50
Referred to Sanitary Division	19	7
Milk applications	105	149

	Dec.	Nov.
Peddlers:		
Applications for licenses approved	17	24
Vehicles inspected and approved	620	51
Court cases	0	1
Fines	0	$400
Laboratory Examinations:		
Bacteriological	0	1
Chemical	1	0

CONDEMNATIONS.

Requested.

Periwinkles . . . . . 1,020 pounds

Not Requested.

Apples	30 cans	Peaches	13 cans
Beef	500 pounds	Poultry	540 pounds
Chicken	270 pounds	Prunes	50 pounds
Cornbeef	150 pounds	Raisins	244 pounds
Fowl	935 pounds	Rabbits	56 pounds
Geese	37 pounds	Tonic	64 bottles
Ham	353 pounds	Sardines	34 cans
Hog	131 pounds	Sweetbread	1
Ice Cream Cones	2,200	Turkeys	459¾ pounds
Lamb	30 pounds	Walnuts	517½ pounds
Pork	20 pounds	Walnut Meat	220 pounds
Olives	10 pounds		

LIVE STOCK INSPECTION (Brighton Abattoir).

	Dec.	Nov.		Dec.	Nov.
Cattle inspected	250	260	Sheep inspected	22	19
Calves inspected	1,205	1,124	Parts condemned	240	233
Swine inspected	5,542	5,211	Animals condemned	5	5

DAIRY DIVISION.

	Dec.	Nov.		Dec.	Nov.
Total inspections	849	1,390	Inactive	17	11
Dairies inspected	305	587	Total cattle inspected	5,666	8,690
Scoring above 50 *	210	369	Inspection of milk plants and licensed dealers	527	382
Scoring below	95	218	Bacteriological examinations	0	410
With milk rooms	144	370			
Without milk rooms	161	217			

* Passable mark.

BUREAU OF MILK INSPECTION.

	Dec.	Nov.		Dec.	Nov.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,371	1,218	Milk	826	589
Vinegar	185	65	Ice cream	148	73
Ice cream	4	12	Court cases	19	14
Butter	1	1	Fines	$305	$455
Miscellaneous	7	6			

SANITARY INSPECTION.

	Dec.	Nov.		Dec.	Nov.
Original inspections	1,543	1,268	Complaints	570	590
New reports	2,169	1,717	Court cases	13	9
Reinspections	5,698	6,235	Vacate notices	3	0
Legal notices served	188	171	Fines	$440	0

BACTERIOLOGICAL LABORATORY.

	Dec.	Nov.
Examinations for diagnosis and release:		
Diphtheria	2,103	2,066
Tuberculosis	245	254
Typhoid	48	47
Gonorrhea	612	686
Gonorrheal Ophthalmia	50	58
Syphilis	1,255	1,308
Other examinations	18*	33
Bacteriological examinations of milk	826	589
Bacteriological examinations of ice cream	148	73

* Dog's head for rabies, 2; dark field examinations, 1; paratyphoid, 2; cultures for virulence, 1; malaria, 3; feces for typhoid, 3; urine for typhoid, 2; blood culture for typhoid, 1; water for coli, 1.

THE COMMON COLD.

The etologic agent in the production of the common cold has been singularly elusive. The disease — if it deserves this imposing designation — is a mild one in man. There are few, if any, significant constitutional reactions from it, and consequently it is not easy to ascertain whether the malady has been transmitted in animal experimentation. For this reason, attempts to infect animals with the common cold of man have borne little fruit in the nature of positive achievement. Efforts to transmit the possible incitant directly to human subjects, though few, have been somewhat more promising. The latest of such trials, conducted by Olitsky and McCartney at the Rockefeller Institute for Medical Research, indicates that the incitant is a filtrable agent obtainable from the nasopharyngeal washings of patients during the very early hours of the onset of the symptoms. At least, with such filtrates the symptoms of common cold have been transmitted to a number of healthy persons. Transmission failed in cases in which the "colds" were caused by exposure to the elements, or chilling of the body, and not by definite contact with other cases of common colds. Evidently there are colds and colds; but it will be an unmixed blessing when the cause of any brand of these commonest sources of malaise can be captured, property indicted and then promptly executed. (J. A. M. A., Nov.)

VITAL STATISTICS, DECEMBER, 1923.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING DECEMBER, 1923, WITH COMPARATIVE FIGURES FOR DECEMBER, 1922.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
All Causes:						
Total deaths	945	1,081	—136	14.72	16.97	—2.25
Nonresidents deducted	797	914	—117	12.41	14.35	—1.94
By Age:						
Under one year	120	150	—30	1.87	2.35	—.48
One year to four years, inclusive	41	74	—33	.64	1.16	—.52
Sixty years and over	370	409	—39	5.76	6.42	—.66
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	55	67	—12	.86	1.05	—.19
Arterio-sclerosis	33	51	—18	.51	.80	—.29
Heart disease	151	183	—32	2.35	2.87	—.52
Nephritis, chronic	52	58	—6	.81	.91	—.10
Infant and Maternal Mortality:						
a. Total registered live births	1,526	1,466	+60	23.77	23.02	+.75
b. Registered stillbirths	55	64	—9	.86	1.00	—.14
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	34.79	41.83	—7.04
c. Deaths of mothers from causes incident to childbirth	8	12	—4	.12	.19	—.07
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	5.06	7.84	—2.78
Deaths of children in first year of life	120	150	—30	1.87	2.35	—.48
Deaths in first year per 1,000 live births	.....	.....	.....	78.64	102.32	—23.68
Violence:						
Accidents	69	48	+21	1.07	.75	+.32
Homicides	2	3	—1	.03	.05	—.02
Suicides	4	11	—7	.06	.17	—.11
Miscellaneous:						
Alcoholism, acute or chronic	18	8	+10	.28	.12	+.16
Broncho-pneumonia	60	61	—1	.93	.96	—.03
Cancer	113	92	+21	1.76	1.44	+.32
Cirrhosis of the liver	2	6	—4	.03	.09	—.06
Diabetes mellitus	17	19	—2	.26	.30	—.04
Diarrhœal diseases, children under two years of age	11	9	+2	.17	.14	+.03

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON, — Concluded.

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases...	5	2	+3	.08	.03	+.05
Deaths..	—	3	—3	—	.05	—.05
Cerebro-spinal meningitis.....Cases...	1	—	+1	.015	—	+.015
Deaths..	1	2	—1	.015	.03	—.015
Diphtheria.....Cases...	326	279	+47	5.08	4.38	+.70
Deaths..	15	19	—4	.23	.30	—.07
Influenza.....Cases...	12	46	—34	.18	.72	—.54
Deaths..	6	3	+3	.09	.05	+.04
Measles.....Cases...	203	300	—97	3.16	4.83	—1.67
Deaths..	2	11	—9	03	.17	—.14
Pneumonia (lobar).....Cases...	151	176	—25	2.35	2.76	—.41
Deaths..	53	93	—40	.82	1.46	—.64
Scarlet fever.....Cases...	420	194	+226	6.54	3.05	+3.49
Deaths..	6	4	+2	.09	.06	+.03
Tuberculosis (pulmonary).....Cases...	127	122	+5	1.98	1.92	+.06
Deaths..	56	53	+3	.87	.83	+.04
Tuberculosis (other forms).....Cases...	29	27	+2	.45	.42	+.03
Deaths..	9	6	+3	.14	.09	+.05
Typhoid fever.....Cases...	12	7	+5	.19	.11	+.08
Deaths..	1	1	—	.016	.016	—
Whooping cough.....Cases...	38	348	—310	.59	5.46	—4.87
Deaths..	—	14	—14	—	22	—.22

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1923 (midyear), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, FEBRUARY, 1924. No. 2

LEST WE FORGET.

There was concluded on December 31, 1923, an elaborate experimental effort to control tuberculosis in a selected American town of about 17,000 inhabitants a short distance from Boston. This experiment at Framingham had been conducted for seven years by the National Association for the Study and Prevention of Tuberculosis, under the supervision of a special committee on which was represented the National Association for the Study and Prevention of Tuberculosis, the Metropolitan Life Insurance Company, the Massachusetts State Department of Health, various local Framingham official and civic organizations and representatives of several organizations in other states interested in the study and prevention of tuberculosis.

The experiment was undertaken at the instigation of the Metropolitan Life Insurance Company. The company promoted the experiment as a business proposition by reason of the fact that over 16 per cent of the deaths in its industrial department were due to tuberculosis and that claims paid on account of tuberculosis amounted to over $40,000,000 annually. Its action was influenced in part by allegations of success in Australia in the control of tuberculosis.

Framingham, Massachusetts, was selected from among towns considered all over the country because Framingham seemed to combine best of all a wide variety in the racial composition and industrial activities of its population and a local town government, official and nonofficial organizations and other civic agencies especially favorable to the success of the experiment.

The experiment was started with a contribution of $100,000 from the Metropolitan Life Insurance Company. This was supplemented by further contributions, in all amounting to nearly $200,000. The town increased its annual appropriations for health purposes from 40 cents to over $2 per capita. Large contributions toward the general purposes of the experiment were made by citizens of the town directly or indirectly, in connection with the management of local industries and through civic organizations. In all, probably during the period of seven years more than $500,000 was spent in this town of 17,000 inhabitants for the promotion of public health and with special reference to the control of tuberculosis.

The experiment was placed under the immediate charge of an executive officer, a physician of broad training in public health and who had achieved a national reputation by reason of his sociological investigations.

Soon after the experiment started there was associated with the executive a physician whose professional training, diagnostic skill and personality contributed in a great measure to such results as the experiment is able to show.

The experiment was well advertised and during its progress Framingham attracted visitors from all over the world. It has given rise to a whole crop of similar "health demonstrations" as funds for such purposes have from time to time become obtainable.

A great deal of practical experience and information has been gained in this experiment at Framingham, and its progress was made the subject of carefully prepared reports from time to time, yet one now seldom sees or hears any reference to anything which has been learned at Framingham regarding tuberculosis during these seven years. As a matter of fact a good deal was learned about tuberculosis at Framingham.

Among the results of this experiment which would seem worthy of further consideration are the following:

Very soon after the experiment started it became evident that in the present state of our knowledge of the factors which determine manifestations of active tuberculous infection and deaths from tuberculosis any success in the way of the reduction of active tuberculosis would have to be brought about by a general improvement

in the health of the people by the utilization of all measures which tend to promote the health of people generally, and thus the experiment became known as the "Framingham Community Health and Tuberculosis Demonstration."

Without attempting to enumerate all the means employed to promote the general health of the community it may be said that they included efforts to bring about better economic conditions in the town, better living conditions in the homes and better working conditions and close medical surveillance in the local industries.

The activities of local official and nonofficial agencies interested in public health were stimulated and extended in scope. Official attention to the health of school children was extended and made to include the establishment of school dental clinics. An intensive campaign of advertising was started in the local newspapers and kept up with the purpose of educating the public in health matters and of getting everybody to think about his physical condition. The advisability of physical examinations was emphasized. Those in charge of the experiment made constant effort to induce people to volunteer to submit to a careful systematic medical examination in order that the results might be available for the purposes of the experiment. Directly in this way and indirectly in other ways there were secured the results of a careful medical examination of no less than three fourths of the individuals composing the population of the town and with reference not only to discoverable signs of tuberculous infection but of any other disease or disability. A valuable aid in disclosing new cases of tuberculous infection was the expert consultant connected with the experiment to whom reference has already been made. It was arranged that he should be available to the public as a medical consultant for a nominal fee and he was freely called by local physicians for this purpose. Largely through his advice and tact some way was usually found to prevent an afflicted individual from being thrown out of employment, and thus one common reason which leads a person with active tuberculosis to keep away from doctors was avoided.

In its local studies the Framingham experiment certainly served to confirm the fact that under present conditions in a Massachusetts city or town it is as impossible to escape infection with the tubercle bacillus early in life as it is to escape the colon bacillus. Local studies also tended to confirm the belief that such early tuberculosis infection is usually beneficent in its effects, tending to confer increased resistance if not immunity to a serious active process. Aside from other opportunities for infection the physical examinations showed that the town was well provided with human agencies for scattering the tubercle bacilli around. These examinations justi-

fied the conclusion that 1 per cent of the population had active pulmonary tuberculosis recognizable on physical examination and that over 1 per cent more had arrested cases of the disease likewise recognizable on physical examination; and that under usual conditions in a Massachusetts city or town the number of active cases of pulmonary tuberculosis may safely be estimated to be nine or ten times the number of deaths reported annually as due to the disease; also that actual deaths from tuberculosis may be estimated to be 22 per cent more than reported deaths from the disease.

The work at Framingham therefore served to confirm a situation which had been indicated in other ways and brought out nothing inconsistent with the often repeated statement that 95 per cent of persons dead from other causes show healed or arrested tuberculous processes in their lungs.

The studies at Framingham failed to show why early tuberculous infection is not always beneficent; whether or not it be a matter of overdosage or of personal vulnerability to the tubercle bacillus or to complicating organisms. The Framingham work did not show the reason for the association of active tuberculosis with certain skeletal peculiarities which have been noted since the days of Hippocrates, nor whether susceptibility to active tuberculosis be dependent on certain peculiarities in the metabolic processes of the individual, nor whether such active processes be favored, like scurvy, rickets, beri-beri and pellagra, by a deficiency in certain food elements. Enough, however, was brought out at Framingham to impress some of the members of the supervising committee that more attention along new lines ought to be devoted to bio-chemical investigations in connection with tuberculosis, particularly with reference to lime metabolism. Moreover, the work at Framingham certainly did show that "so far as Framingham is concerned, the economic and general environmental factors are not the determining influences in the relative incidence of active and arrested disease" (tuberculosis).

The results of tuberculin skin tests (Von Pirquet tests) are also deserving of attention. Difficulty in securing the co-operation of parents made it impracticable to carry out these tests as extensively as desired, but nearly 500 children between the ages of one and seven years were tested. There was a striking variation in the proportion of positives among different racial stocks and in different parts of the town. The highest ratio of positives was obtained among the racial stocks and in the localities which furnished the smallest number of cases of active tuberculosis, while the lowest ratio of positives was obtained among the racial stocks and in the localities which furnished an undue proportion of actual cases of tuberculosis. Thus

Framingham supplies another reason for regarding a positive Von Pirquet as an indication of resistance, or "anti-bodies," rather than evidence of active infection. The condition of these positive reactors was checked up from time to time, but at the conclusion of the experiment six years later not one of these children had given any indication of active tuberculosis.

The foregoing merely touches on some of the matters covered by the seven years' work at Framingham. Published reports include the consideration of such practical matters in public health administration as "Diagnostic Standards," school sanitation and medical examination, factory hygiene and medical service and their cost. These reports also serve as guides to other phases of health activity in a small city and their cost.

The Framingham experiment was certainly successful in materially reducing the general death rate in the town. Of this there can be no question. It is extremely doubtful, however, if all this intensive work and large expenditure of money on nursing service as well as other personal surveillance had any effect whatever on the infant mortality.

The Framingham experiment also succeeded in demonstrating that even in the present unsatisfactory state of our knowledge regarding the factors which determine the death rate from tuberculosis in a community it is possible in a town the size of Framingham by the lavish expenditure of money under competent direction to lower the death rate from tuberculosis for a certain period of years anyway. That the work at Framingham has actually lowered the death rate from tuberculosis there can be no question. The extent to which this has been brought about by the experiment is not so clear. The seven towns taken by an appraisal committee as a control likewise show a consistent decrease in the death rate from tuberculosis during these seven years, even though no noteworthy anti-tuberculosis work was carried on in these towns. But the decrease in Framingham has been sufficiently greater to remove any possible doubt as to the cause. To what extent this decrease in deaths from tuberculosis in favor of Framingham may actually represent the prevention or cure of the disease or may mean the postponement of death for a few years also remains uncertain. The condition of the cases under observation in the town justifies the belief, however, that while the decrease in the death rate may be accounted for to some extent by the postponement of death by unusual care, actual results have been attained in the prevention and cure of cases of the disease.

RELATIONS BETWEEN A MUNICIPAL DEPARTMENT OF HEALTH AND PRIVATE AGENCIES IN THE FIELD OF NURSING.*

By George C. Shattuck, M. D.

Through the courtesy of your president I have the honor of introducing for discussion the question of what should be the relations between a municipal department of health and private agencies in the field of nursing. I speak, not with authority, but as one seeking to learn the principles which should guide such relations. Although the subject is too large to be covered at this time, it may be possible to formulate some useful concepts.

I shall begin by assuming two premises:

Firstly, available public funds are now and will continue to be insufficient to enable a municipal health department to undertake everything which might be desirable. Consequently it follows that the greatest economy consistent with efficiency must prevail, the value of every new activity to be undertaken at public expense must be carefully weighed in advance, and expenditures for nurses must bear a reasonable relation to the total budget of a health department.

Secondly, it is not expedient, either from the point of view of expense or from that of sociology, that a municipality should assume all the functions that a private nursing organization may legitimately exercise.

It follows from this that it is vitally important for a private organization to formulate its policy with relation to the functions which it believes the municipality should ultimately assume.

Having formulated a policy, I believe that the private agency should state its position and should endeavor to co-operate with municipal authority in such a way as to promote the policy aimed at.

Representatives of private agencies, when dealing with public servants, should endeavor to understand and to appreciate the greater difficulties with which public officials are generally confronted. Public servants, on the other hand, should be willing to profit by the experience of private agencies which have long been in the field and which have won the good-will and confidence of the public by the character of their work. When there is desire for co-operation between public and private agencies, and when each wishes to deal considerately with the other, it should be possible to establish co-operation and co-ordination of work and to keep constantly in mind the duty of improving service to the public without overstepping the bounds either of reasonable expenditure or of sociological good sense.

* Read at the meeting of the Massachusetts Association of Directors of Public Health Nursing Organizations on January 18, 1 924.

When workable relations have been established, and when certain objectives have been agreed upon, the next necessary step may be to secure an increased appropriation to cover the cost of new work to be undertaken at public expense. The official may or may not be able to obtain it unaided. Before he can get an increased appropriation he must present his case clearly and forcibly enough to persuade a group of laymen to vote him the funds, and those who hold the purse strings are properly and inevitably influenced by public opinion. The private agency might help to develop favorable public opinion.

On the other hand, a private agency might exert its influence on behalf of the citizens which it represents against a form of development which it disapproves, or it might even protest publicly against the official policy. If a private organization contemplates a public protest, however, I believe that it should first present its views in a friendly manner to the Health Commissioner, that it should give due regard to his opinions, and that before appearing publicly in opposition it should be prepared to present facts to justify that opposition. Statements, even if true, which cannot be substantiated are not convincing. This seems to me an essential point which private agencies sometimes overlook.

Suppose now that there is agreement as to the nature of new work which a health department wishes to take over from a private agency but that the private agency disapproves the methods which the Health Department plans to adopt for carrying it out. Does it then become the duty of the private agency to attempt to prevent the assumption of the new duties by the Health Department? I think not. On the contrary, I believe that the private agency is answerable only to its own constituency whereas the public officials are responsible for their acts to all the people. In such a situation the private agency can best discharge its obligation by recognizing the responsibility of the public servants, by favoring the principle of extension, and by protesting against the method which it deems unwise.

Such a protest should first be advanced through private conferences in an effort to reach agreement. Failing adjustment by this means, the private agency may consider the matter of sufficient importance to warrant a public hearing and may take steps to obtain a hearing; but, let me repeat that, before demanding a hearing, any group of citizens should be prepared to justify its stand in a convincing manner. Otherwise, it will not only fail at the time, but will lose influence for the future.

Someone has said that people get the kind of government that they deserve. Surely there is much truth in this. In the last

analysis the efficiency and scope of a health service will depend upon the degree of importance attached to it by the people and upon their willingness or unwillingness to spend money for health work. If health work is to be much improved, or extended on a sound basis, public opinion in its favor must first be cultivated and must then find effective means of expression.

At this point I ask your considered opinion on three phases of nursing for the public.

1. How, in your community, can co-operation and co-ordination of work between public and private agencies employing nurses for field work best be established?

2. Should it be a function of your private agency to help to develop and to guide public opinion with regard to field work by nurses?

3. What kinds of field nursing can your municipal authorities advantageously undertake with due regard for expense and for the best interests of the public from the sociological standpoint?

Before the subject is thrown open for discussion, and in pursuance of the request of your chairman,I shall express my own views in outline with regard to the third question.

Most people, I think, believe in the broad principle that a health department or the health work of a school board should be limited to the preventive field. That is to say, work undertaken should have prevention as its object and should be essentially preventive rather than curative in its nature.

As at present conducted in many places preventive work falls naturally into four classes; firstly, sanitation; secondly, control of communicable disease; thirdly, instruction of the public in maintenance of health and avoidance of preventable disease; and fourthly, supervision of the health of school children. In the third and fourth classes official activity is of relatively recent development.

If it has been wise to place the health of school children under official supervision on the ground that health, like education, of the coming generation is important to the whole community, then it would seem logical to offer similar supervision for children from the time of birth, and also supervision for mothers during the dangerous periods of pregnancy and childbirth. I believe, that local health authorities should plan, ultimately, to offer such service to all citizens, just as now the public schools are open to the children of all.

The functions suitable for private agencies then would be, firstly, to fill gaps in preventive work; secondly, to test new preventive methods in order to establish their value and the best method of applying them with due regard for expense; thirdly, to aid municipal authority in giving health instruction; fourthly, to provide bedside

nursing free or at low rates for those needing such help; and fifth, to foster public opinion in favor of constructive health work.

An essential aim should be co-ordination of the health programs of official and unofficial agencies.

HARVESTING ICE.

In this section of the country where natural ice can be harvested, every dairyman should make preparations to supply an abundant amount of ice for next summer and for all periods of next season where the temperature is high. Ice is necessary in the production and marketing of high grade milk and cream. Proper cooling and cold storage on the farm is the greatest single factor influencing the bacterial content of milk between the time it leaves the cow and the time it reaches the consumer.

Dairy inspectors do well to urge upon the farmers the necessity of putting up ice, and now when work is slack is a favorable period in which to prepare for the time when ice will be ready to cut.

If the place has an ice house it may be cleaned and made ready for use. Dairymen who have no ice house should build one. They will find much to help them in the "Farmers' Bulletin, 1078" and the department will send one of these pamphlets to early applicants. Both the farmer and inspector will find it very useful.

Every farmer should cut at least two tons of ice per cow. This will enable him to cool his milk during such periods as is necessary, allow for meltage and provide some for household use.

It is possible to build an ice pond if no river or lake is available. The water used for ice making should be of unquestionable purity. Old ice ponds should be cleared of vegetable matter and refuse before the coming harvest.

Every farmer should act on these suggestions now. By so doing he will effect a great saving to himself by reason of a better milk supply and he is sure to have less friction with whoever handles his milk in the city over bacterial counts. The dairy inspector can prove his usefulness by vigorous encouragement in this campaign.

A SAFEGUARD IN USING HYDROCYANIC ACID GAS.

The United States Public Health Service is adding cyanogen chloride to hydrocyanic acid gas in connection with the use of the latter as an insecticide and for killing rats on ships. Cyanogen chloride otherwise known as "tear gas" gives warning of the presence of the dangerous hydrocyanic acid gas and makes practically impossible fatal accidents from the accidental inhalation of the latter.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during January. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.46	3.63	17
Anderson, Oscar A.	12.65	3.80	17
Antetomasso, Peter	12.61	3.80	16
R. Barden Creamery Company	14.07	5.05	462
Barron, Clarence W.	13.91	4.77	12
Barry, Michael F.	12.22	3.60	38
Bemis, Henry E.	12.44	3.67	20
Bergmann, John H.	12.89	3.95	37
Bolio, Mary J.	12.45	3.95	14
Bowditch Estate, E. F.	11.96	3.50	12
Brandley, P. J. & T. J.	12.90	4.10	81
Brandon Farms Milk Company	12.52	3.90	14
Burns, James	12.47	3.77	20
Casey, James D.	12.68	3.96	37
Cashin, James F.	12.20	3.65	9
Cedar Hill Farms, Inc.	13 21	4.32	14
Chapin, George L.	12.46	3.82	16
Childs Brothers	12.29	3.60	16
Clark, Levi	12.40	3.65	24
Cohen, Benjamin	12.42	3.72	38
Corkery, John H.	12.30	3.55	22
Creedon & Crowell	12.56	3.78	16
Cummings, F. S., Company	12.28	3.66	16
Cunningham, Paul	13.97	4.85	19
Cusick, William H.	12.34	3.67	11
Deerfoot Farms Company	13.06	4.16	15
Denehy, Timothy	12.65	4.00	28
Driscoll, William D., Company	12.40	3.85	14
Duggan Brothers	12.90	4.20	28
Edgerly, Frank S.	12.42	3.70	21
Elm Spring Farm Company	12.34	3.70	45
English, John	12.14	3.65	56
Ferguson, Malcolm D.	12.39	3.61	15
Floyd Milk Company	12.58	3.80	24
Fortune & Allen	12.42	3.75	30

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Furbush, A. J.	11.98	3.17	20
Garvin, Charles E.	14.30	5.70	20
Giroux, J. E., & Co.	12.18	3.65	60
Griffin, Joseph L.	12.46	3.78	14
Griffin Brothers	12.90	4.00	15
Gushee, W. S., & C. W.	12.32	3.68	187
Hagar, J. M., & Sons	12.60	3.65	26
Hancock, T. G., & Co.	12.62	3.85	81
Herlihy Brothers	12.48	3.80	114
Hickey, Martin J.	13.07	4.25	23
Holden, John E.	12.46	3.82	64
Hood, H. P., & Sons, Inc.	12.48	3.81	43
Jones, W. T., & Co., Inc.	13.02	4.10	236
Kendall Brothers	12.05	3.42	71
Kennedy, R. J., Jr.	12.62	3.85	39
Kingston, Samuel	12.55	3.85	17
Klawa & Co.	12.85	3.90	11
Knapp, George J.	12.48	3.76	277
Kszywoszyi, Michael	12.60	3.80	15
Lang, Michael J.	12.51	3.67	17
Larkin, Patrick	13.15	4.26	24
Larsson, Charles	12.38	3.68	18
Lincoln Farms, Inc.	12.60	4.10	380
Lyndonville Creamery Company	12.49	3.62	437
Magee, Nellie A.	13.08	3.90	14
Manning, Peter E.	11.96	3.42	84
Maple Farm Milk Company	12.52	3.75	52
McAdams, John F.	12.40	3.75	68
McGilvray, Charles D.	13.04	4.20	28
McKernan, John	13.05	4.05	22
Moore, Peter	12.38	3.72	47
Munchbach, George	12.72	3.81	28
Newton & Pope	12.73	3.85	18
Noble, William F., & Sons	12.70	3.80	11
Rautenberg, Otto G.	12.36	3.75	16
Raycraft, Benjamin F.	12.98	4.15	17
Robinson, Albert J.	12.48	3.75	12
Robinson, James A.	12.66	3.67	24
Runkle, John C.	13.40	4.40	16
Schuster, Adam	12.38	3.71	30

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Seven Oaks Dairy Company	12.58	3.76	49
Shick, Jacob	12.29	3.52	52
Smith & Lynch	12.48	3.81	50
Somerset Farms	12.82	4.15	10
Sterling Farms Milk Company	12.54	3.71	20
Stone, Howard L	12.70	3.82	47
Stuart, Wallis E	12.86	3.83	14
Sullivan, John D	12.71	3.90	45
Sullivan, John L	12.10	3.60	14
Turner Centre System, Inc	12.49	3.75	32
Upland Farms Milk Company	14.26	4.85	12
Vartanian, Gazar	12.18	3.62	17
Vartanian, Setrag	12.22	3.55	12
Walker Gordon Milk Laboratory	12.89	4.05	19
Ware, George H	12.42	3.66	19
Weiler, E., & Sons	12.70	4.00	24
Werner, Ferdinand	12.34	3.70	41
Westwood Farm Milk Company	12.23	3.68	23
White Brothers	12.54	3.91	21
Whiting Milk Companies	12.20	3.55	47
Whittemore, Warner D	12.31	3.75	25
Wiswall, Granville A	12.80	3.95	76
Wittenberg & Co	12.67	3.80	392
Woodland, Charles	12.08	3.60	24

CHAIN STORES MILK.

Name of Dealer.	Supplied by.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.28	3.67	62
The Cloverdale Company	Turner Centre System	12.84	3.95	29
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.61	3.93	17
Co-operative Grocery Company,	J. M. Hagar & Sons	12.68	3.82	26
Economy Grocery Stores	Turner Centre System	12.37	3.72	35
First National Stores	Whiting Milk Companies	12.84	3.97	32
Morgan Brothers Company	Turner Centre System	12.45	3.78	51
M. O'Keeffe, Inc	J. M. Hagar & Sons, Inc.	12.56	3.82	18
Rose Tea Company	H. P. Hood & Sons, Inc., and Whiting Milk Companies.	12.35	3.70	54
M. Winer Company	Hyman Winer	12.63	3.72	75

FILTHY SHOPPING HABITS SPREAD CONTAGION.

Observe the common rules of decency and cleanliness. This pertains to shopping, especially, and while we might suggest avoiding crowds, congestion, and the like, let us suggest trying to avoid for our children's sakes some of the practices that still prevail among purchasers and dealers. We must refer to the manner of purchasing many toys and instruments, that automatically or unconsciously the child will put into his mouth. How often have we observed the sales person try a balloon by putting it into his mouth and blowing up the balloon and then handing it to the mother and next to the child to test; and if not satisfactory it is put back on the counter and the same practice followed with a later customer. The same is true with respect to pipes, harmonicas, whistles, horns and similar mouth organs and instruments. This is a pernicious, filthy and dangerous habit as a result of which you may suffer.

Store proprietors advanced a step when they prohibited the exchange of hair goods and neckwear, but of course it is a more difficult matter to regulate the other practices. It is difficult to restrain a boy or girl who has stopped at a counter from taking up one of these mouth instruments and automatically putting it into his or her mouth, although in some places notices are posted prohibiting this practice. If parents and boys and girls would think for only a minute that this same toy might have been but a few minutes before in the mouth of a person possibly diseased, we know this promiscuous testing practice would cease. It is regrettable that a practice of this sort may often be the cause of filthy mouth sores and constitutional diseases that have no place in a decent and respectable household. We often wonder how such a sickness enters the home, and all appear ignorant of its source, and well they may, because we seldom think that this promiscuous testing practice that is so pernicious may have been the cause. We hesitate before wiping our hands and faces with a common towel, the use of which is against the law, because we know the dangers of it; so let us be just as careful about actually putting into our mouths articles that are handled just as much as the common towel, and are so much more dangerous as sources of infection from disease.

In the days of antiquity, 460 to 377 B. C., Hippocrates, the most celebrated physician of antiquity and the father of scientific medicine, described tuberculosis as the disease which is "the most difficult to treat, and which proves fatal to the greatest number." In 1550 the celebrated physician Montano declared consumption to be one of the most dangerously contagious and most easily contracted of diseases. So strong was this idea of contagion that the celebrated

anatomist Morgagni, who lived from 1682 to 1771, never performed an autopsy on a person who had died from tuberculosis.

History shows that wild tribes and less civilized people succumbed to the disease as a rule very rapidly as soon as they came in contact with civilization. This is proven among the North American Indians and among the negroes and their descendants now living in the United States. A few years ago tuberculosis was known to be dangerous and prevalent among the Blood Indians of the Dominion of Canada, there being twenty-three out of every hundred deaths due to tuberculosis. But let us state that the increased mortality among Indians and negroes is due not to the blessings of civilization, but rather to the vices, such as overcrowding, alcoholism and excesses of all kinds, which too often accompany civilizing agents.

TUBERCULOSIS AT BOSTON HEALTH SHOW.

At the recent Boston Health Show the exhibits of the Tuberculosis Committee presented a remarkable example of co-operative work, in that the different agencies sank their individualities in an effort to work together. The Boston Tuberculosis Association furnished the funds necessary to finance the exhibits, some $500; the state and city institutions furnished the physicians and nurses for the clinics who came without compensation; individual societies looked after one or another of the essential features, and it was all done with the single idea of making a practical demonstration of methods for fighting tuberculosis.

There were three clinics a day with eight specialists and twenty-four nurses in relays. The weighing and measuring required another group, while still a third large group of assistants included attendants at the booth on the first floor and ushers, the former from the Boston Tuberculosis Association Auxilliary and the latter from the various Lend-a-Hand clubs of Boston and vicinity.

The tuberculosis exhibit was in two sections, one a display and information booth on the first floor near the entrance and the other the clinic rooms in a large hall on the second floor. The information booth presented a large model of the Prendergast Preventorium, the Healthland flier and dolls, dressed by the girls of the Florence Crittenden Home, which showed the chores of the Modern Health Crusade. Attendants here answered questions and ushers conducted visitors to the clinic rooms above.

The accommodations for the clinics were excellent. There was a large waiting room with seats for those who were waiting. To these persons series of lantern views of health, educational or picturesque value were constantly shown. This is a work which the

Boston Tuberculosis Association carries on every Friday at the Boston Dispensary. For the Health Show a group of more than twenty volunteer operators was assembled by the Women's City Club. Partitions divided the remaining space into six examining compartments, two dressing rooms and a room in which the nurses took the histories, which were devoted to tuberculosis; space for the apparatus used in the chest expansion and posture contests, for which the Boston Tuberculosis Association awarded four $10 gold pieces to the winners; space for the fluoroscope which was provided by the Kelly-Keott Company; the model sleeping room of the Channing Home; the booths of the health fortune tellers and the exhibit of the occupational therapy division of the Boston Sanatorium. The walls and partitions were utilized for the exhibition of posters and charts.

There were 510 persons who received a thorough physical examination without cost to themselves, the examinations having especial reference to tuberculosis. The results were these: With pulmonary tuberculosis, 25; cervical adenitic tuberculosis, 1; suspicious cases—tuberculosis, 37; chest and gland diseases for follow-up, 57; no tuberculosis, but other diseases, 95; negative, no tuberculosis, 295. Total, 510.

Of the pulmonary cases 7 were incipient, 5 moderately advanced and 13 did not have condition definitely stated; 5 were active, 1 possibly active and 11 were not active. The age grouping of the 26 positive cases showed 1 under twenty years of age, 6 under thirty, 7 under forty, 8 under fifty and 2 each in the groups under sixty and under seventy. Twenty-eight different diseases were represented in the group of 95 free from tuberculosis but having some other malady. Of these 20 had tonsilitis, 15 heart disease, 10 carious teeth, with the other maladies represented by one or two cases each. One case of appendicitis was diagnosed and the individual referred to a hospital.

The clinics were free to persons visiting the show, and a partial analysis of the reasons for coming has been made. About one-third of the positives came through the advertisements in the newspapers, and quite a number had been referred to the clinic by the department stores of the city. The Boston Tuberculosis Association considers that the finding of 26 positive cases at a cost of $500 is a good investment.

The weighing and measuring progressed merrily all the time. The ceremony was made more interesting by the presence of health fortune tellers, who gave cards to the visitors. Some 1,400 persons visited the booths, all receiving cards, and some of them were referred to the different clinics at the show. Children had cards for

their parents, and school children had additional cards for the information of their teachers.

The Tuberculosis Committee of the Boston Health Show has given an important lesson in health education to more than 2,000 citizens of Boston, and it may well feel proud of the results of its efforts.

FOOD INSPECTION.

Our readers were made acquainted in a recent issue with the story of discovery and seizure of a large shipment of rancid ice cream cones intended for human consumption in Boston. It is well to mention here, too, that observations continued in this direction resulted in the recent discovery of another large consignment of ice cream cones, intended for sale to the public in a section of the city where the poorer class would be made susceptible to any injurious effects which these cones might have if allowed to be sold. This comment is noteworthy in view of the fact that the story of these cones might be considered a sequel to the facts which led to the wholesale seizure and condemnation described in the previous issue, in view of an indirect connection with the jobbers concerned in the previous transaction and one of the jobbers in the last.

It is interesting to note here in connection with food inspection activities that so-called "Jo" lobsters, which are in a dying condition, were not found to be so by the inspector detailed to meet boats arriving from points in New Brunswick and Nova Scotia. On the contrary, all lobsters so arriving were found in first-class condition.

A SECTION FOR PUBLIC HEALTH NURSES IN THE AMERICAN PUBLIC HEALTH ASSOCIATION.

After two years' probation, the Public Health Nursing Section of the American Public Health Association was made permanent at the Boston annual meeting in October. While most nurses are already overburdened with organizations, it is felt that this affiliation is a privilege that should be accepted by all public health nurses in executive positions. The wherefore of this statement is found in two quotations from the December "Public Health Nurse." Miss Margaret Stack, chairman of this section, says, "The American Public Health Association differs from other health organizations not only in its membership, which includes doctors, health officers, bacteriologists, sanitary engineers, statisticians, nurses, health publicity workers, etc., but because it is endeavoring to become a professional group with the object of establishing a public health profession. As workers in the public health profession, nurses should

be members of this association." And Miss Stack might have added, it is the only professional public health society where the various kinds of public health workers can meet on the common ground of their professional interest. Miss Elizabeth Fox in discussing the program of the Boston meeting says, "That there should be questions of relationship between an old profession such as medicine and a young profession such as public health nursing is but natural. That this relationship needs analysis and exposition has been increasingly apparent. That it should be approached from the angle of the physician, the health officer and the public health nurse, since all these are concerned, is clearly in the interests of thoroughness and justice. Therefore it seemed particularly appropriate that this subject should be presented for discussion by the American Public Health Association which offers a common meeting ground for these three groups." It is just this need of an opportunity to talk things over that has led to much misunderstanding on the part of both professions in the past, and the keen interest displayed at this meeting bespeaks a future for this section that will be reflected in every public health nursing organization that participates. Nurses who are members of the association desiring transfers to the Public Health Nursing Section may request a transfer from the General Secretary. Those desiring membership should send their names and addresses to Mr. Homer N. Calver, General Secretary, American Public Health Association, 370 Seventh avenue, New York City.

VALUE OF PALPABLE ENLARGEMENT OF THE SPLEEN AS A DIAGNOSTIC SIGN OF MALARIA.

In the United States Public Health Report of July 13, 1923, Dr. M. V. Veldee, Assistant Surgeon, United States Public Health Service, reports the results of an effort on the part of the United States Public Health Service to check up the value of palpating the spleen as a means of determining the prevalence of malaria in a community.

School children in various districts of the South, where malaria was present, were examined. Blood smears were made and an effort made to palpate the spleen in each case.

In order to permit of a rapid examination of spleens the child while standing was made to bend forward until the body was flexed at practically a right angle. Simultaneously with the inward pressure of the two examining fingers, pressure was made with the palm of the other hand on the child's back, over the location of the spleen. It was believed that in examinations made with the children in this position, the abdominal relaxation was as satisfactory as if the child had been lying on its back with the knees and thighs flexed. The

work in the various communities was afterward gone over and checked up by independent observers.

Notwithstanding that an enlarged spleen suggests repeated malarial infections and in spite of the practice of taking quinine in some of these communities, this investigation showed that in nearly all cases of children in which a blood smear proved positive, a demonstrably enlarged spleen had also been recorded. It was therefore deemed sufficient to rely on an examination of spleens alone to indicate the prevalence of malaria in any community. This was the purpose for which the investigation was made but the results also indicate the value as a diagnostic aid of a careful examination for splenic enlargement whenever in any person for any reason malaria may be suspected.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING JANUARY, 1924.

Classification.	Number.	Percentage.
	January.	January.
After death	3	8.33
Seven days or less	2	5.55
Eight to fourteen days, inclusive	1	2.80
Fifteen to twenty-one days, inclusive	—	—
Twenty-two to thirty-one days, inclusive	—	—
Within First Month	6	16.68
Within second month	2	5.55
Within third month	4	11.11
Within fourth month	2	5.55
Within fifth month	2	5.55
Within sixth month	—	—
Within seventh month	3	8.33
Within eighth month	1	2.80
Within ninth month	2	5.55
Within tenth month	2	5.55
Within eleventh month	1	2.80
Within twelfth month	—	—
Within First Year Preceding Death	25	69.47
Within second year	3	8.33
Within third year	—	—
More than three years	8	22.22
Totals	36	100.02

DOES YOUR CHILD FUSS ABOUT HIS FOOD?

I. Maybe it is your Fault.

1. Do you fret about what he eats and whether he is getting enough? If so, very likely at every mealtime you make him the star actor in a little drama, and every child likes to be the center of attention.

2. Do you talk about his eating habits to other people in his presence? If so, any child would feel important and want to keep up being different.

3. Do you insist on feeding him after he is old enough to feed himself, just because it is easier than to teach him? Better let him spill a little till he learns than to become dependent and, hence, often fretful.

4. Is someone else in the family very particular about eating? Of course, a child likes to imitate what older people do.

II. Maybe you have not Fed Him Wisely.

1. Do you choose plain, nourishing, easily digested foods and cook them well?

2. Have you let your child taste everything that grown people have? A child used to having tea, coffee, and highly seasoned foods or too many sweets has lost a healthy appetite.

3. Do you serve food as attractively as you can and in not too large quantities? Children hate to eat things that do not look well, and are sometimes discouraged by too much.

4. Do you feed your child regularly? A child cannot go too long without food, while eating between meals means that his little stomach is overworked.

III. Maybe this is a Warning that Your Child's Nervous System is not Working in a Healthy Way.

Do you find that he sleeps poorly, is irritable or has violent tempers, or strange fears? If so, not only his eating but other habits of his life are probably disarranged.

IV. Maybe you have not Realized what an Effect Emotion has on the Taking of Food.

1. Do you know that a child who is angry or fearful or worried cannot digest food properly? If, then, he refuses food at such times, do not try to make him eat, but overcome the emotion first by a more healthy attitude of mind. Good cheer is a splendid appetizer.

2. Do you ever create an unpleasant scene in an effort to make a child eat? In this way you arouse emotions that make eating impossible at the time and arouse distaste for that food ever after.

3. Do you create jealousy by denying to one child what another

has? If it is not wise to give all the children the same foods, the child who is refused ought to know why, and not be allowed to feel that he is treated unfairly.

4. Do you try to show your authority by making a child eat a thing just because you say so? This only creates anger and obstinacy, which mean inability to digest food, and what have you gained? Is it not better to show him that you are reasonable and expect him to be; that you consult his preferences when you can, but if a food is needed for health, he must try to learn to like it?

5. Do you suggest to the child your own doubt whether he is going to eat or not? A child is quick to refuse if he senses that you expect him to refuse, and as quick to eat what is offered without question.

6. Are you so afraid of your child's missing a meal that when he refuses what you give him you provide something else? The child knows by your attitude that you are afraid, and that he can get what he wants if he persists. Missing a meal will not hurt him. Leave the food twenty or thirty minutes, and then take it away and give nothing else till the next meal. In this way the child soon learns to eat what is offered at regular times.

— *Massachusetts Society for Mental Hygiene.*

TYPHOID IN THE LARGE CITIES OF THE UNITED STATES IN 1923.

Death Rates From Typhoid in Cities of Group 1 (More Than 500,000 Population).

	Deaths from Typhoid per 100,000 Population.					
	1923.	1922.	1921.	Average 1916-1920.	Average 1911-1915.	Average 1906-1910.
Boston	1.0	1.4	3.1	2.5	8.0	16.0
Cleveland	1.7	2.2	3.4	4.0	10.0	15.7
Philadelphia	1.7	2.7	2.3	4.9	11.2	41.7
Chicago	1.9	1.0	1.1	2.4	8.2	15.8
New York	2.4	2.2	2.1	3.2	8.0	13.5
San Francisco	3.0	2.2	4.2	4.6	13.6	27.3
Los Angeles	3.1	3.7	2.6	3.6	10.7	19.0
Pittsburgh	3.7	4.6	4.1	7.7	15.9	65.0
St. Louis	4.0	4.2	3.8	6.5	12.1	14.7
Detroit	4.0	5.0	5.8	8.1	15.4	22.8
Buffalo	4.3	3.5	4.2	8.1	15.4	22.8
Baltimore	4.3	4.0	5.4	11.8	23.7	35.1

— *Twelfth Annual Report.* (*Journal A. M. A.*)

FOOD POISONING.

The following table compiled by Dr. J. C. Geiger of the United States Public Health Service may be of interest:

General Food Poisoning.	Botulism.
Incubation Period.	
Usually 3 to 8 hours, rarely over 12.	Usually 24 to 48 hours.
Treatment.	
Supportive and eliminative.	Botulinus antitoxin, specific type; absolute quiet; eliminative.
Investigative Procedure.	
1. Use incubation period for basis of determining the causative meal.	1. Use incubation period for basis of determining the causative meal.
2. Always suspect freshly cooked or warmed over foods. Preserved foods are rarely at fault. Foods are apparently O. K. as to taste, appearance, odor and texture.	2. Always suspect preserved foods; likewise, meat products such as sausages. Spoilage of foods is noted in many instances.
3. Bacteriologic examination of excreta of patients and the suspected food for the paratyphoid group and other organisms.	3. Test of suspected food for toxin by animal inoculation; mice, guinea pigs or rabbits. Test for type with specific antitoxin. Culture of suspected food for the presence of spores, particularly if food has been previously boiled.
4. Bacteriologic and epidemiologic search for human carriers and possible contamination from animal sources.	4. Search for domestic animals, such as chickens with symptoms of limberneck, for corroborative field and laboratory evidence.
5. Complications: Appendicitis, cholecystitis, persistent elevation of temperature (paratyphoid infection).	5. Complications: Bronchopneumonia.
	6. Human outbreaks are usually due to Type A toxin.
Symptomatology.	
Sudden onset; nausea, vomiting, abdominal pain, prostration, diarrhea and rise of temperature.	Delayed onset; marked muscular weakness; gastro-intestinal symptoms, rare; disturbances of vision with diplopia and blepharoptosis; loss of ability to swallow and talk; constipation; rapid pulse and subnormal temperature; rarely any pain; death from respiratory failure.
Mortality, 0 to 1 per cent.	Mortality over 60 per cent.
Case infectivity rate high.	Case infectivity rate usually 100 per cent.

AN ANTI-FREEZING MIXTURE.

Dr. Charles H. La Wall of the Philadelphia College of Pharmacy and Science recommends a solution of glucose as an antifreezing mixture for automobile radiators. He uses a pint and a half of glucose to a gallon of water. He mixes the glucose with enough warm water to dissolve the glucose and then adds the dissolved glucose to the water already in the radiator. He states that such a glucose solution will begin to get "slushy" at about 10 degrees Fahrenheit, but does not freeze or harden at 6 degrees Fahrenheit.

SUMMARY OF THE WORK, JANUARY, 1924.

BUREAU OF ADMINISTRATION.

	Jan.	Dec.
Hearings authorized	2	3
Prosecutions ordered	25	16
Dump applications approved	9	9
Disapproved	0	1
Offensive trades approved	2	0
Legal notices	265	188
Lying-In Hospitals certified	2	1
Demolition orders	0	3
Vacate notices	2	3
Day nursery approved	7	1
Special drafts	1	2
Budget transfers	1	1
Forcible removals	4	0
Bids accepted	0	1
Personnel:		
Appointments	5	2
Provisional	1	2
Permanent	3	0
Without pay	1	0
Leaves of absence	1	0
Resignations	1	0
Official visits	1	1
Massage license:		
Revoked	1	0
Stable permit revoked	0	1
Refused	0	1

LICENSES, PERMITS, ETC., ISSUED.

	Jan.	Dec.
Burial permits	1,106	1,040
Milk licenses	147	122
Pedlers' licenses:		
Granted	155	15
Hen licenses granted	16	13
Stable permit finally granted	2	0
Grease licenses	0	1
Sausage manufacturing	1	0
Undertaker's license granted	1	0
Denatured alcohol licenses	6	18
Manicure-massage:		
Granted	46	34
Dumps	42	6

MEDICAL DIVISION.

BUREAU OF COMMUNICABLE DISEASES.

	Jan.	Dec.
Visits:		
By medical inspection,	1,464	1,431
By veterinarian	120	132
By investigator	325	347
By nurses	4,185	5,068
Cases brought to Boston for treatment	84	66
Deaths investigated	20	18
Nurses' activities:		
Schick tests	677	1,199
Schick readings	585	1,721
Toxin-antitoxin injections	1,705	4,216
Medical inspectors' activities:		
Schick tests	677	1,199
Schick readings	585	1,721
Toxin-antitoxin injections	1,705	4,216
Vaccinations	9	22
Vaccination certificates issued	9	1
Antitoxin injections	20	0

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, JANUARY, 1924.

SYPHILIS.

Current cases under investigation January 1, 1924	21
New cases assigned during the month	16
Total	37

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	8
Further treatment unnecessary	0
Not located:	
Search abandoned	5
Under investigation January 31, 1924	24
Total	37

GONORRHEA.

Current cases under investigation January 1, 1924	61
New cases assigned during the month	81
Total	142

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	36
Further treatment unnecessary	0
Not located:	
Search abandoned	49
Fraudulent use of name	0
Under investigation January 31, 1924	55
Total	142

SUMMARY.

Current cases under investigation January 1, 1924	82
New cases assigned during the month	97
Total	179

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	45
Further treatment unnecessary	0
Not located:	
Search abandoned	53
Fraudulent use of name	0
Under investigation January 31, 1924	79
Total	179
Form letters mailed to above patients	96
Form letters unclaimed returned from post office	32
Form letters accepted by patients	64
Venereal disease complaints	18
New cases	10
Under investigation January 1, 1924	8
Disposition of complaints:	
Placed under treatment	3
Unable to locate	2

No evidence of disease	3
Under investigation January 31, 1924	10
Visits by investigators	340

HEALTH UNIT (Blossom Street).

	Jan.
Health Department proper:	
Vaccinations	24
Vaccination certificates issued	10
Antitoxin, anti-typhoid and toxin-antitoxin injections	572
Children examined for camps and day nurseries	9
Visits made by medical inspector	101
Dental clinic:	
Number of operations	1,826
Number of dismissals	267
Number of children treated	752
Nutrition Service:	
Number of conferences	4
Attendance at conferences	52
Number of home visits	129
Nose and Throat Service:	
Number of conferences	4
Number of examinations	240
Adenoids and tonsils operations recommended	62
Cases visited by nurses:	
Medical	314
Babies	691
Visits to children of pre-school age	420
Complaints of insanitary conditions	25
Visitors:	
Resident	12
Nonresident	5
General:	
Persons applying for information	550
Community Health Association:	
Child Hygiene Division:	
New babies admitted	64
Home visits to babies	1,320
Number of conferences	15
Attendance at conferences	496
General:	
Visits made by nurses	2,092
Posture clinics	9
Attendance	52
Boston Dispensary:	
Calls by district physician	92
Boston Sanatorium:	
Calls by nurses in district	979
Jewish Welfare Center:	
Nutrition conferences:	
Number	2
Attendance	35

	Jan.
Nutrition Classes:	
Number	2
Attendance	30
Habit Forming Clinic:	
Number	3
Children examined	10
Home visits	13

CHILD HYGIENE DIVISION.

	Jan.
Total number of all visits	*4,225*
Visits to new cases	1,017
Visits to old cases	2,745
Opthalmia cases:	
Visits by Child Hygiene Division	118
Visits by Health Unit	14
Infant mortality investigations	161
Maternal death investigations	184

FOOD INSPECTION DIVISION.

MARKET STORE AND RESTAURANT SERVICE.

	Jan.	Dec.
New reports	5,737	3,768
Stores inspected	6,515	4,076
Sanitary defects remedied	126	105
Complaints at office	46	47
Referred to Sanitary Division	10	19
Milk applications	118	105
Peddlers:		
Applications for licenses approved	33	17
Vehicles inspected and approved	599	620
Court cases	4	0
Convictions	4	0
Fines	$20	0
Laboratory Examinations:		
Bacteriological	6	0
Chemical	3	1

CONDEMNATIONS.

NOT REQUESTED.

Asparagus	106 cans	Marmalade	1 jar
Apples	15 pounds	Pork	120 pounds
"	3 cans	Poultry	63 pounds
Bologna	40 pounds	Pigs feet	10 pounds
Candy	383 pounds	Protase	1 can
Beef	300 pounds	Shoulders	14 pounds
Fowl	216 pounds	Spare ribs	325 pounds
Fresh shoulder	985 pounds	Tonic	126 bottles
Grapes	1040 bags	Turkeys	217¾ pounds
Haddock	158 pounds	Veal loaf	25 pounds
Hamburger	1½ pounds	Walnut meat	15 pounds
Lamb	16½ pounds	Walnuts	8,965 pounds

LIVE STOCK INSPECTION (Brighton Abattoir).

	Jan.	Dec.		Jan.	Dec.
Cattle inspected	109	250	Sheep inspected	41	22
Calves inspected	1,496	1,205	Parts condemned	208	240
Swine inspected	5,365	5,542	Animals condemned	11	5

DAIRY DIVISION.

	Jan.	Dec.		Jan.	Dec.
Total inspections	1,432	849	Inspection of milk plants and licensed dealers	411	527
Dairies inspected	159	305	Bacteriological examinations	845	0
Scoring above 50 *	96	210	High bacterial counts investigated	9	0
Scoring below	63	95	Country creamery inspections	6	0
With milk rooms	67	144			
Without milk rooms	92	161			
Inactive	2	17			
Total cattle inspected	3,273	5,666			

* Passable mark.

BUREAU OF MILK INSPECTION.

	Jan.	Dec.		Jan.	Dec.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,578	1,371	Milk	907	826
Vinegar	129	185	Ice cream	21	148
Ice cream	1	4	Court cases	24	19
Butter	1	1	Fines	$445	$305
Miscellaneous	1	7			

SANITARY INSPECTION.

	Jan.	Dec.		Jan.	Dec.
Original inspections	1,949	1,543	Complaints	834	570
New reports	2,949	2,169	Court cases	22	13
Reinspections	6,820	5,698	Vacate notices	1	3
Legal notices served	211	188	Fines	0	$440

BACTERIOLOGICAL LABORATORY.

	Jan.	Dec.
Examinations for diagnosis and release:		
Diphtheria	2,184	2,103
Tuberculosis	268	245
Typhoid	50	48
Gonorrhea	749	612
Gonorrheal Ophthalmia	50	50
Syphilis	1,554	1,255
Other examinations	39 *	18
Bacteriological examinations of milk	907	826
Bacteriological examinations of ice cream	21	148

* Dog for rabies, 1; dark field examinations, 3; malaria, 5; feces for typhoid, 3; urine for typhoid, 3; genito-urinary tuberculosis, 6; rabies, 1; blood for eosinophilia, 5; paratyphoids, 2; spinal fluid for organisms, 2; evaporated milk for decomposition, 1; sausage for trichinae, 1; smear for spirochaete, 1; water for sewage, 4; coffee for poisons, 1.

VITAL STATISTICS, JANUARY, 1924.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING JANUARY, 1924, WITH COMPARATIVE FIGURES FOR JANUARY, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
All Causes:						
Total deaths	959	1,300	—341	14.81	20.25	—5.44
Nonresidents deducted	806	1,108	—302	12.45	17.26	—4.81
By Age:						
Under one year	133	187	—54	2.05	2.91	—.86
One year to four years, inclusive	45	94	—49	.69	1.46	—.77
Sixty years and over	352	524	—172	5.44	8.16	—2.72
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	71	69	+2	1.09	1.07	+.02
Arterio-sclerosis	33	57	—24	.51	.89	—.38
Heart disease	152	213	—61	2.35	3.32	—.97
Nephritis, chronic	62	75	—13	.96	1.16	—.20
Infant and Maternal Mortality:						
a. Total registered live births	1,328	1,329	—1	20.51	20.70	—.19
b. Registered stillbirths	46	42	+4	.71	.65	+.06
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	33.48	33.55	—.07
c. Deaths of mothers from causes incident to childbirth	16	9	+7	.25	.14	+.11
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	11.64	6.56	+5.08
Deaths of children in first year of life	133	187	—54	2.05	2.91	—.86
Deaths in first year per 1,000 live births	.....	.....	.....	100.15	140.71	—40.56
Violence:						
Accidents	61	41	+20	.94	.64	+.30
Homicides	1	2	—1	.015	.03	—.015
Suicides	5	14	—9	.08	.22	—.14
Miscellaneous:						
Alcoholism, acute or chronic	17	12	+5	.26	.19	+.07
Broncho-pneumonia	64	128	—64	.99	1.99	—1.00
Cancer	91	95	—4	1.41	1.48	—.07
Cirrhosis of the liver	3	7	—4	.05	.11	—.06
Diabetes mellitus	11	21	—10	.17	.33	—.16
Diarrhœal diseases, children under two years of age	13	14	—1	.20	.22	—.02

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases...	3	4	—1	.05	.06	—.01
Deaths..	—	1	—1	—	.015	—.015
Cerebro-spinal meningitis.....Cases...	3	3	—	.05	.05	—
Deaths..	2	—	+2	.03	—	+.03
Diphtheria.....Cases...	321	311	+10	4.96	4.84	+.12
Deaths..	22	28	—6	.34	.44	—.10
Influenza.....Cases...	10	156	—146	.15	2.43	—2.28
Deaths..	5	32	—27	.08	.50	—.42
Measles.....Cases...	541	279	+262	8.36	4.34	+4.02
Deaths..	2	4	—2	.03	.06	—.03
Pneumonia (lobar).....Cases...	158	255	—97	2.44	3.97	—1.53
Deaths..	54	142	—88	.83	2.21	—1.38
Scarlet fever.....Cases...	602	267	+335	9.30	4.15	+5.15
Deaths..	6	6	—	.09	.09	—
Tuberculosis (pulmonary).....Cases...	164	121	+43	2.53	1.88	+.65
Deaths..	40	51	—11	.62	.79	—.17
Tuberculosis (other forms).....Cases...	29	17	+12	.45	.26	+.19
Deaths..	8	9	—1	.12	.14	—.02
Typhoid fever.....Cases...	8	1	+7	.12	.015	+.105
Deaths..	1	—	+1	.01	—	+.01
Whooping cough.....Cases...	52	421	—369	.80	6.56	—5.76
Deaths..	1	23	—22	.015	.36	—.345

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above. the estimated population for July 1, 1924 (midyear), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

1559

Rec'd MAR 26 1924 B. P.

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, MARCH, 1924. NO. 3

SUNSHINE AS A MEDICINE.

There is increasing evidence of the beneficial and often remarkable effects of direct sunlight in tuberculous infections, rickets and various other pathological conditions. It is to be borne in mind, however, that helio-therapy does not mean indiscriminate exposure of the body to the sun's rays. Sunlight can do harm as well as good. Experience has shown that exposure of the body to the sun's rays should always proceed cautiously, and that whether beneficial or harmful results will follow a certain amount of exposure will depend not only on the nature of the patient's disease and his general physical condition, but upon such factors as the patient's complexion and local atmospheric conditions.

In one institution where a notable degree of success with heliotherapy has been attained in tuberculous conditions it is customary to hold a patient indoors for study and observation of the case for two weeks without exposure to the sun at all, and proceed cautiously with exposure for a week, increasing each day the area of the body exposed and the duration of the exposure. An elevation of the bodily temperature above normal or a "septic temperature" is in itself no reason why the patient should not be exposed to sunlight,

but bodily temperature is carefully watched, and a tendency for it to increase after exposure is regarded as an indication that exposure is being overdone.

There are also certain precautions generally observed in helio-therapy. Treatment is discontinued at least one half an hour before meals and not resumed until more than one hour after meals. In hot summer weather exposure is discontinued during the middle of the day. During treatment the top of the patient's head is protected from the sun's rays by a cap or an awning and colored eye glasses are worn. The patient's body is always sheltered from the wind or draughts, movable screens being used for this purpose as needed. A total of four hours' treatment daily is usually regarded as the maximum. "Sunburns" must be avoided, a matter which calls for especial caution in persons with a light complexion and delicate skin. "Tanning," that is, the deposit of pigment in the skin, is the first object sought. The beneficial effect of the sun's rays becomes more apparent after a coat of tan has been acquired, and the rapidity with which tanning appears is also regarded as an indication of a favorable response to this form of treatment. Ulcers or open sores are exposed to sunlight, but not until after the surrounding parts have begun to tan.

When judiciously employed no treatment has ever given more remarkable results than helio-therapy. This is true with respect to other conditions than the tuberculous infections with respect to which helio-therapy has received its greatest publicity. It is equally efficacious in any sort of sub-acute or chronic infections. Its results are most striking in cases of slow convalescence from acute diseases like measles, scarlet fever or diphtheria, and facilities for systematic helio-therapy should be provided in every hospital used for the care of these diseases. Sunshine has long been recognized as an effective agent in terminating the "carrier" state of infections of the respiratory tract. Diphtheria "carriers" will be found to give "negative" laboratory reports after they are turned loose in the summer sunshine. A crowd of miliary meningococcous carriers held in quarantine all winter and subjected to all sorts of schemes to eradicate their meningococci without appreciable results are finally found to have ceased to be carriers after a week of warm, sunny days in the spring.

Sunshine produces, of course, local effects on the body, but its constitutional therapeutic effects are far more important. This is so even in tuberculous cases with local lesions. The beneficial effects of helio-therapy were seen even in those abnormal conditions characterized chiefly by nervous symptoms and deviations from normal blood pressure, but without tangible cause other than per-

haps indications of defective metabolism and deranged internal secretions. The influence of sunlight in these cases is as mysterious as the way in which it promotes the assimilation and fixation of lime salts or prevents the development of typical rickets even with a diet deficient in lime. The recognizable effects of sunlight on the blood are as marked as the effects of the sun's rays on the skin. The hæmaglobin is increased and the proportion of the different forms of white corpuscles is altered, and other recognizable changes are produced in the constituents of the blood stream.

NEW ENGLAND HEALTH INSTITUTE IN BOSTON.

May 5 to 10 will witness the gathering of those interested in public health at the meetings and sections of the New England Health Institute. There will be thirteen sections which will include the subjects of venereal disease, tuberculosis, foods and food control, social work, preventable diseases, mental hygiene, nutrition, health education, child hygiene, industrial hygiene and accident prevention, sanitation, public health nursing and health administration. For programs, registration blanks and detailed information concerning the Institute, write Dr. Merrill E. Champion, 545 State House, Boston.

HEALTH CENTER.

Dr. Charles F. Wilinsky.

In endeavoring to define the term "health center" one is naturally confused by the number and varied definitions given by men prominent in health center development. This is in a great measure due to the variety and type of institutions defined as "health centers," which vary in their scope of activities. Some are institutions for the dissemination of health education only, while others may conduct only a baby conference or a venereal clinic. Some may carry on the many functions of the health departments, while others may be miniature dispensaries.

As a result of the progress made in health center development, we come to what may be construed as the ideal type, which combines all of the health agencies, public and private, as well as the welfare agencies, co-ordinating their activities, and conducting a battle against disease with marked emphasis on prevention.

If it may not be considered presumptuous on my part, I would define a health center as "an institution for the promotion of the health and welfare of the people, made ideally possible and practical by grouping all of the public and private health, welfare and relief agencies under one roof."

History of Health Center Development.

Let us briefly sketch the history of health center development. The health center movement may be said to be about twelve years old, first conceived to give health service to a group of people in a localized area, by Dr. W. C. White in Pittsburgh, Penn. A similar plan was adopted in Milwaukee, where emphasis was laid on child welfare work in a definite area by Wilbur C. Phillips. In 1913 the New York Milk Committee established a health center in the Syrian district for little children. In Cincinnati a definite area was taken up by tuberculosis nurses. In September, 1914, Doctor Goldwater, Health Commissioner of New York, formulated a plan and created a health center on the lower East Side, followed by a similar one in Queens. From this grew a chain of 12 municipal health centers with plans formulated during Dr. Haven Emerson's administration as Health Commissioner for 53 in all. These were to be linked up closely with voluntary health and social agencies and promised adequate service to as nearly 100 per cent of the people as was humanly possible. Unfortunately a change of administration nullified this splendid program.

In Philadelphia the Child Federation co-operated with the Health Department in the creation of health centers, concentrating strongly on infant welfare work.

In 1914 Buffalo opened five municipal health centers and in 1915 both Cleveland and Philadelphia developed additional centers.

It may perhaps be mentioned at this time that at a conference at the home of Dr. Richard Cabot, attended by Dr. Francis X. Mahoney, the present Health Commissioner, and the writer, as well as members of the health and welfare agencies, the Blossom Street Health Unit was created late in 1915.

In 1917 there were about a dozen health centers in large cities. A notable exception of a small town health center development of merit was Norwood, Mass., with a population of about 12,000, developing a civic health program.

There was a real growth in 1919 with 49 communities developing 72 centers, Cleveland having 7, Philadelphia 8, and Buffalo 5.

In 1919, under direction of Doctor Farrand of the Red Cross, the latter organization took up as a peace time program the launching of the health center as a nation-wide institution, and local chapters of the Red Cross were urged to establish throughout their communities sound public health centers. Three hundred eighty-five were created, and it is estimated that there are about 1,000 health centers in the United States today.

In the March, 1921, issue of the "Journal of the American

Public Health Association," Dr. Walter Brown, then connected with the American Red Cross and later in charge of the Mansfield, Ohio, demonstration, said, "that the proper development of the health center idea is the next big step in public health, with sociologists agreeing that in the health center we have a piece of social machinery of great value for attacking socio-medical problems demanding solutions."

I take the liberty of adding to the above that the health center, through its personnel, has become the great local medium for the dissemination of the principles of preventive medicine.

Types of Health Centers.

The types of health centers created are varied; some are county demonstrations in which the entire health and welfare activities of a county are pooled, with the services available for the entire county.

Alameda County, California, furnishes the most striking example of a county demonstration, with 52 health and social welfare agencies housed together. Dutchess County, New York, is another.

Some health centers are centralized and others are decentralized demonstrations.

In small cities or towns where practically all of the health, social and welfare activities are housed in the one health center, there is created a centralized type, of which Norwood, Mass., is a shining example.

In the larger cities there are decentralized activities with a chain of health centers serving the various sections in which they are located, with a responsible administration in the central office. Philadelphia, Penn., with 10, Cleveland, Ohio, with 7, and St. Louis, Mo., with 10, are examples of decentralized health center activities in large cities.

A brief survey of a few cities, counties and towns in the United States, made a short while ago, shows the following existing health centers:

Buffalo, N. Y.	7	Cleveland, Ohio	7
Cincinnati, Ohio	1	Detroit, Mich.	Several
St. Louis, Mo.	11	Albany, N. Y.	2
Baltimore, Md.	1	Milwaukee, Wis.	3
Philadelphia, Penn.	10	Minneapolis, Minn.	1
Washington, D. C.	8	New Haven, Conn.	1
Manchester, N. H.	1	Portland, Me.	2
Augusta, Me.	1	Canton, Ohio	1
Knoxville, Tenn.	1	Harrisburg, Pa.	1
Dunkirk, N. Y.	1	Oswego, N. Y.	1
Binghampton, N. Y.	1	Schenectady, N. Y.	1

There are 30 health centers scattered throughout the smaller cities of New York, due to the stimulus of the New York State Health Department, who indorse strongly health center development.

New York City has 64 municipal baby welfare stations concentrating strongly on infant and child hygiene. There are several excellent private health centers, of which the East Harlem Health Center is the most prominent and active in health center development. This experiment, financed by the American Red Cross and housing a large number of health, social and relief agencies, including the various branches of the New York Health Department, has done most excellent work and occupies a most prominent place in American health centers.

Creation of a Health Center.

As a result of experience obtained to date, let us at this time, presume to outline the establishment of a health center, with the necessary essentials and program to be followed.

The fundamental principle in the creation of a practical and modern health center is the correlation of all the health and social agencies, whether public or private, under one roof, with the beneficent results derived from the contact of the workers. From this must result a co-ordination of the activities with the doing away of duplication and waste of efforts.

In the planning of a health center, location is an essential factor and it must be apparent that logically the usual ideal location will be where the need is greatest for teaching the lesson of preventive medicine. In cities it will naturally be in that neighborhood where ideal sanitation and hygiene is a great problem, where baby welfare must be emphasized, where improvement of housing conditions must be sought for, where a campaign against tuberculosis may need to be waged.

It is essential that an earnest endeavor be made to explain and prove to the people in the district that the aim and purpose of the center "is to help the people and to keep them well, and to render every human service possible for the prevention of disease." It becomes the duty of the newly created health center to interest itself in every condition detrimental to the health of the neighborhood in which it functions.

Essential Agencies.

Only by convincing the community that our program is sound, can we thoroughly establish ourselves on a firm and successful foot-

ing. All local existing health and welfare agencies whether public or private, should be carefully studied and all essential activities of merit, included in the proposed development. Local conditions may determine essential services needed, but one cannot have too many meritorious activities necessary in disease prevention. Existing gaps will be discovered and missing needed services in the community supplied.

In order to properly promote the principles of preventive medicine it is important that only such services that are truly prophylactic in their nature and type, be a part of the health center, leaving the curative field to the practitioner, hospital and existing dispensaries. Only in that way can we make the health center emphasize prevention of disease and we should render only such treatment which may be classified as truly preventive.

We will presume correctly in the assumption that in the modern health center, will be found the various activities of the Health Department, which must necessarily include maternal and baby welfare, epidemiological service, food and sanitary inspectors, dental service for young children, facilities for transmission of varied sera therapy for the prevention of various communicable diseases; in short, a decentralization of Board of Health activities, so that service may be brought right into the local neighborhood.

Health being a positive thing, and disease a negative abnormal condition, it becomes the paramount duty of those responsible, to do everything possible to maintain the health of the people, by a constant campaign of disease prevention, and health education, and the health center must become the local focus for health propaganda.

Nursing organizations offering various services, anti-tuberculosis agencies waging a campaign against tuberculosis, school physicians and school nurses in the district and many others can be enumerated as essential cogs in the health center machinery.

It is obvious to every well trained physician and social worker that the connection between poverty and disease is so close that there has to be co-ordination and marked co-operation between health work and family welfare. Bringing together the workers of these two distinct groups in the health center results in time saving and the creation of a better piece of work.

It is important to remember that the modern physician is being trained for the field of preventive, as well as curative medicine. On the other hand campaigns are being waged for the education of the public with regard to the value of prophylaxis, routine medical examinations and other available services for the promotion of health and increase of longevity.

There is yet too much unnecessary sickness and suffering with consequent loss of life and economic waste, and it is here that the physician can play his part. The private physician is the most important asset in public health work, and he must be properly regarded as a very important factor in the success of a local health center. He should be linked up with the same and his co-operation should be eagerly sought.

While there has been much progress in public health knowledge the work is still in its early stages. We must disseminate fully the knowledge we have of hygienic methods of living during infancy, childhood, adolescence and maturity. Such an educational health program aims and hopes in time to reduce to a minimum the need of medical care. A proper effort along educational lines from a health center usually results in a splendid response by the people, who after all, want to be well.

It is no longer necessary for us to sit in our office waiting for patients and things to do, when there is so much to be done.

Organization.

The success of the individual center depends, of course, upon a proper organization with proper co-operation by all contributing agencies. We will not endeavor to take up much space with outlining the organization necessary, except to briefly state that the various health and welfare agencies and services must contribute solid moral support to plans agreed upon and carried out by a director in charge. He must be surrounded by a representative advisory committee, so far as possible, composed of people actively interested in the leading medical, nursing and welfare organizations in the city and district where the health center exists. We cannot emphasize again too strongly the necessity for the co-operation of the physician in the district who should be freely consulted as to the plans and policies of the health center, and who should function if possible in the preventive program.

The ideal principle at the present moment seems to be the dissemination of knowledge of the value of prevention of disease with marked emphasis on actual prophylaxis. Fundamentally we are trying to promote the health of the people, and if we believe in the progressive principles of preventive medicine developed in the last fifty years, we must adhere as closely as possible to the following program.

Program.

We must begin by giving the expectant mother proper prenatal instruction. Upon the birth of a child, infant welfare guid-

ance, and after two years of age the youngster must be carefully carried through the pre-school age period, receiving correct physical supervision through that most important age, so that we may be able to turn over to the school nurse and school physician, for their watchful care, a child physically able to cope with the class room problems. In adolescence and adult life we must impress upon the individual the value and virtue of routine medical examinations which may be properly defined as physical stocktaking. Emphasis must then be laid on careful living, proper hygiene, etc. In the creation and rounding out of the above service a health center becomes a powerful potent factor in the life of the individual, and becomes a community house where one will come for health and welfare relief.

The Blossom Street Health Unit.

A very brief allusion has been made to the creation of the Blossom Street Health Unit, maintained by the City of Boston, and at this time perhaps it would be proper to show just how closely we have adhered to the concept outlined in this paper, in reference to the formation, development and carrying on of health center activities.

Organized in November, 1915, it was opened on February 1, 1916, at 17 Blossom street, in the West End section of Boston, supported and maintained by the Health Department of the city, with the following agencies actively co-operating and housed on the premises: The Health Department of the City of Boston, Consumptives' Hospital Department, Instructive District Nursing Association, Milk and Baby Hygiene Association, visiting physician of the Boston Dispensary and the Hebrew Federated Charities.

All of these organizations were functioning in the West End at the time, but scattered in different headquarters, with no two agencies housed under one roof. Briefly, a call for a district physician for the poor, had to be left at either a drug store or at a settlement house. A request for a visiting nurse had to be left at a church, where were located their headquarters. A desire for vaccination or other Health Department services either had to be obtained at the Chardon Street Home or at the Health Department headquarters. The Boston Sanatorium nurse for consumptives had her headquarters at the Elizabeth Peabody House and at another private residence, and the Jewish Federated Charities had an office of their own in the district.

All of these agencies were doing splendid work in the district, but the value of bringing them together under one roof, and correlating their activities can readily be appreciated by any one of the slightest

analytical mind. The benefit to the community can readily be seen and the response immediately proved the long felt want for such a center.

We take great pride in stating that every one of those agencies are still with us at the Unit and contributing tremendously to the program of co-operation and proper service to the people in the district.

An endeavor was immediately made to familiarize the resident population with the aims, endeavors and purpose of the Health Unit, and health exhibits, baby shows and lectures along medical lines were held from time to time with splendid results.

Upon the entrance of the United States into the World War the activities of the Health Unit were suspended, and the building was turned over for draft board work, legal advisory board conferences and other meetings conducive to the winning of the war. Upon the cessation of hostilities the Health Unit was again reopened, and since 1921 has steadily gained in services, personnel, additional organization, and its results are perhaps best emphasized by a tremendous increase from day to day, week to week, month to month, and year to year, in services rendered to the community.

Miss Mary Beard, Director of the Community Health Association of Boston, in a paper outlining a health center, before a session on Community Organization for Health Work at the National Nurses' Convention at Atlanta, Ga., on April 20, 1920, pointed out the danger and defects of absolute independence of various health organizations, formed to combat some menace to health, functioning without co-ordination. She points out the many able health agencies functioning in Boston, but without a correlation of activities.

She ably maps out her conception of an ideal center functioning in the following manner:

The agencies housed under one roof, with a service organizer in charge.

Her program calls for a representative neighborhood committee as well as nursing and medical committees. She suggests as essential services, pre-natal classes, well baby conferences, dental clinics and diagnostic services. On her list of other essentials are anti-tuberculous services, also well child conferences with emphasis on nutrition.

What more need be said than that every service recommended in the above program as ideally essential, is carried on without exception at Blossom street, and in the conduction of the above services the Community Health Association, which Miss Beard directs, plays a very important part.

Too much stress cannot be laid upon the splendid co-operation at Blossom street of the Boston Sanatorium, whose work is anti-tuberculous, the Forsyth Dental Infirmary for Children, the State Department of Health, the Boston Dispensary, of various charity organizations, health agencies and settlement houses in the district, all of which have played an important part in the development of the Unit. In short, the representatives of every agency housed in the Unit from its inception have worked shoulder to shoulder for the common good, and have proven the virtue of co-operation and correlation.

A splendid neighborhood conference has been developed, including meetings with 36 constituent agencies represented. Prominent men and women in public health and welfare work address the conference.

Existing gaps and badly needed wants have been filled, and an example of this is the creation of the dental service, contributed and supported by the City of Boston, with the Forsyth Dental Infirmary in charge of the services, and receiving compensation from the city. This service alone has been of inestimable benefit in teaching the value of the care of the teeth of the expectant mother and the pre-school age child. Dental service is rendered to the kindergarten and first grade child, an endeavor being constantly made to teach dental hygiene rather than to carry on reparative work. Two full-time dentists and a dental hygienist comprise the dental staff, and that they have been on the job is manifested by the fact that during 1923, 13,304 dental services were rendered, with 1,842 children being dismissed with their mouths in perfect condition.

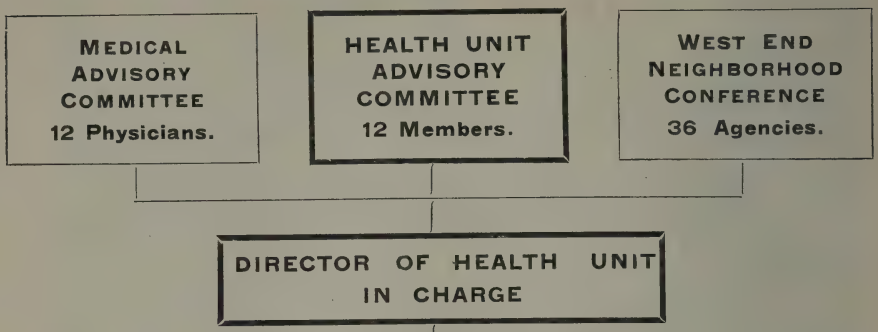
Another important service to be mentioned at this time is a full-time nutrition worker supported by private contribution, who is developing a much needed correct impression about the value of proper diet, and the importance of nutrition in early childhood.

The establishment of a Habit-Forming Clinic for the eradication of the bad habits in the pre-school age child, is supplying a much-needed want for perhaps the prevention of future delinquency in the youngster. Well baby and well child conferences, posture clinics, dietetic classes, nose and throat service, organization of little mothers' classes, health plays and lectures are but a few of the services carried on at the Unit.

The chart on page 68 illustrates the agencies, personnel and services rendered at the Unit, with figures for 1923.

These agencies and services are actually functioning at the Health Unit and are closely linked up with all other medical, social and relief agencies working in the district.

BLOSSOM STREET HEALTH UNIT—ORGANIZATION.



Functioning Agencies and Personnel.	Duties.	Services Rendered in 1923.
1. Health Department.		
1 Medical inspector	Contagious diseases visited	946
	Vaccinations performed	1,552
	Vaccination certificates issued	746
	Anti-toxin, anti-typhoid and toxin anti-toxin administered	1,933
	Children examined for camps and day nurseries	207
	Schick tests performed	187
1 Supervising nurse	Health information and staff assistance	5,028
	Instructions given to home nursing classes.	
1 Communicable disease nurse,	Cases visited in district	2,989
2 Baby hygiene nurses	Babies visited in district	2,025
	Pre-school children visited	532
3 Sanitary inspectors	Investigation of special complaints	241
Dental Service. 2 dentists 1 hygienist	Dental services to pre-school, kindergarten and first grade children. Expectant mothers.	15,146
Nutrition Service. 1 nutrition worker with volunteer assistants.	Nutrition conferences and dietetic and nutrition instruction for children of pre-school age	559
Nose and Throat Service. 1 physician	Nose, ear and throat examinations, and tonsils and adenoids operations recommended	527

Functioning Agencies and Personnel.	Duties.	Services Rendered in 1923.
2. Community Health Association.		
1 Supervisor and 13 nurses....	Pre-natal classes. Well baby conferences and home visits. Well child conferences and home visits. Posture classes and home visits. Bedside nursing.....	33,184
3. Boston Dispensary.		
1 physician.....	Visits to the poor in the district.....	579
4. Boston Sanatorium.		
4 nurses.....	Bedside service and care and instruction to the tuberculosis patients in the district,	9,815
5. Jewish Welfare Center.		
1 nutrition worker with volunteer assistants.	Nutrition conferences, classes and dietetic and nutrition instruction for children over six years.....	1,302
6. Medical Advisory Staff.		
12 local physicians.....	Routine medical examinations.....	154
	Total services rendered in 1923.....	77,598
7. State Department of Mental Diseases.		
Habit Forming Clinic.		
1 physician; 1 psychiatrist; 1 social service worker.	Correction of habits of the pre-school age child.....	*

* Organized for service late in 1923 and now functioning.

A study of the annual reports for 1921, 1922 and 1923 show the following interesting statistics:

1921 — 49,779 services rendered.
1922 — 56,974 services rendered, an increase over 1921, 7,195.
1923 — 77,598 services rendered, an increase over 1922, 20,624.

The above figures show a percentage increase of services:

1922 of 14 plus per cent over 1921.
1923 of 55 plus per cent over 1921.
1923 of 36 plus per cent over 1922.

Significant are the increased services along the lines of prophylaxis, in which may be included 13,304 dental services rendered to the first grade, kindergarten and pre-school age child, and 1,933 toxin anti-toxin administrations for the prevention of the contraction of diphtheria.

There were 527 examinations for tonsils and adenoids in November and December, 1923, this service being approximately only two months old.

Attention must be called to the general stimulus for health information, with

857 requests in 1921 as against
2,263 requests in 1922, an increase of 164 plus per cent over 1921.
4,803 requests in 1923, an increase of 460 plus per cent over 1921.
an increase of 112 plus per cent over 1922.

These figures are outstanding evidences of human desire in a health center area for health instruction and prophylaxis and should offer great stimulus to further health center development.

What have we tried to do and what have we accomplished?

We have tried to link together the medical, nursing, social, instructive and charitable organizations already existing in a given district and have tried to create a clearing house where preventive nursing, educational and relief work may be done with the least duplication of effort, friction or delay.

We have established the most cordial working relations between public and private health and welfare agencies, which may be properly regarded as an important contribution in health and social work. We have constantly added from time to time services undeniably recognized as essential in a program of prophylactic medicine. We have proven that people properly approached and acquainted with the value and virtue of such services have speedily availed themselves of the opportunity to accept the same as sound and essential principles. This is manifested by an increase of 20,624 services rendered to the people in our district in 1923 over 1922. An allusion has already been made to the fact that these increased numbers have been in the field of prophylaxis.

We have enumerated some of the activities. It would not be keeping pace with the time, if one were content with what has been accomplished and it is earnestly hoped that Blossom street will always add to its services anything deemed by leading medical minds as essential in prevention of disease work. I am sure that one must agree that there can be nothing but beneficial results both to the community in which the Center is located and to the workers connected with the Unit, who are able to do their work without any waste of energy or duplication of effort.

Homer Calver in his able symposium on health centers, says that the possibilities are ideal for bringing together all public health agencies in a given area, bringing activities closer to the people.

The one who can visualize a miniature health department housing every social, nursing, relief and welfare agency established in various sections of a city, leaving nothing undone to relieve the

sick and distressed, has a true conception of the modern health center idea, and I feel strongly that we should no longer wonder what a health center is or should be.

Theodore Roosevelt said "our nation's health is physically our greatest asset." With this sound doctrine in mind, it becomes the fixed duty of the health departments to lead in the development of this sound ideal and to beg for the co-operation which is sure to follow and come from the splendid private health and welfare organizations, with which our great country is honeycombed.

We have apparently found a sound vehicle for the dissemination of the principles of preventive medicine with consequent reduction of morbidity. Let us put our shoulders to the wheel with the principle of co-operation always before us as a guiding star.

NOVEL HEALTH WORK OF BOSTON TUBERCULOSIS ASSOCIATION.

For the past three years the Boston Tuberculosis Association has sought to carry its health work to those of our citizens who have come to this country from foreign shores. Such groups are often in need of the kind of assistance that the association is fitted to give, but usually it is difficult to carry the message to them. For the benefit of the foreign colonies in Boston, therefore, the association has been continually in touch with the newspapers printed in languages other than English, and these have made most ready response to the effort by publishing notices sent to them.

During the present winter the idea was suggested of taking the "little church on wheels" into the midst of the districts where the foreign populations are greatest, and with speakers in the different languages help to a considerable extent in the health education of these peoples. The little church has heretofore been devoted to religious missions. It has outwardly the appearance of a small chapel; it has a steeple, a platform on which the speaker at its back door will be somewhat elevated above his auditors on the pavement, while such accessories as a phonograph to accompany the singing are not forgotten.

On January 19, in the afternoon, the little church was taken to North square and speedily an audience began to gather. Some two hundred adults lingered to see what was to be done. The speaker was Dr. Luigi P. Verde, Italian born, a fellow of the Massachusetts Medical Society and one of the physicians of the Boston Health Department, who forcefully and clearly explained to his

compatriots the dangers of tuberculosis, the ways of avoiding it and the proper course to pursue if unfortunate enough to be actively infected. An interested company of men and women listened to Doctor Verde, and he held his audience to the end, yes even longer, for quite a number remained to ask advice or information. The association considers this experiment a great success, and in the spring, with favorable weather, the little church on wheels is likely to begin regular ministrations in the field of health in different sections of the city.

CARE OF MILK.

Whenever we have an especially warm summer the fact is brought out that the milk-producing industry, supplying this market with milk and cream, fails to give the subject of adequate refrigeration of these commodities the consideration to which they are entitled. Milk and cream require more care to ward off spoilage than any other product which the farmer sells, yet despite this fact, it is subjected to abuse and lack of oversight. Such minimum protection results in substantial annual losses. This means not only a serious interference with business routine but also waste from the money standpoint. Someone must pay for the shrinkage in values. Consequently the cost of raising, handling and distributing milk and cream is artificially enhanced and with this, in the end, the consumer is charged. Experience has shown the magnitude of this loss, and it is evident that both the producer and dealer should attack the problem with such energy that the souring of milk and cream through improper refrigeration will be reduced to a minimum. The icing of milk products must not be governed by seasons. It is a matter requiring attention whenever the temperature is high. See that your milkman is equipped to give your supplies ample protection from high temperature during the warm months of 1924.

DR. BERNARD W. CAREY.

Dr. Bernard W. Carey, for many years connected with the Department of Public Health (State) as Deputy Commissioner and Director of Bureau of Communicable Diseases, has accepted the position of Director, Child Health Demonstration ("Milbank Foundation"), at Athens, Ga.

VITAMINS IN FOODS.

	"A"	"B"	"C"		"A"	"B"	"C"
Bread, white (water)	?	*	–	Tomatoes (raw or canned)	*	**	***
(milk)	*	*	?	Beans, kidney	†	***	†
Bread, whole wheat (water)	*	**	?	navy	†	***	–
(milk)	**	**	?	string (fresh)	**	**	**
Barley (whole)	*	**	–	Cabbage, fresh, raw	*	***	*?
Corn, yellow	*	**	–	cooked	*	**	*?
Oats	*	**	–	Carrots, fresh, raw	**	**	**
Meat, lean	–to *	*?	*?	cooked	**	*	*
Beef fat	*	–	–	Cauliflower	*	**	*
Mutton fat	*	–	–	Celery	†	*	†
Pig kidney fat	**	–	–	Cucumber	†	*	†
Oleomargarine	*	–	–	Dandelion greens	**	**	*
Liver	**	**	*	Eggplant, dried	†	**	†
Kidney	**	**	*?	Lettuce	**	**	***
Brains	*	**	*?	Onions	†	**	**
Sweetbreads	*	*	†	Parsnips	–?	**	†
Fish, lean	–	*	†	Peas	**	**	*?
fat	*	*	†	Potatoes (boiled 15 minutes)	†	**	*?
roe	*	**	*?	(boiled 1 hour)	†	**	*?
Milk, fresh	***	**	*‡	(baked)	†	**	*
condensed	***	**	*‡	Sweet potatoes	**	*	†
dried (whole)	***	**	*‡	Radish	†	*	†
skimmed	*	**	*‡	Rutabaga	–?	**	***?
Buttermilk	*	**	*‡	Spinach, fresh	***	***	†
Cream	***	**	*‡	dried	***	**	†
Butter	***	–	–	Squash, hubbard	**	†	†
Cheese	**	†	†	Turnips	–?	**	†
Cottage cheese	*	†	†	Apples	*	*	*
Eggs	**	*	*?	Bananas	*?	*?	*
Almonds	*	*	†	Grape juice	†	*	*
Cocoanut	*	**	†	Grapefruit	†	**	**
Hickory nuts	†	**	†	Lemon juice	†	**	***
Peanuts	*	**	†	Orange juice	*	**	***
Pecans	†	*	†	Prunes	†	*	–
Walnuts	†	**	†	Rasberries (fresh or canned)	†	†	***

* Contains the vitamin.
** Good source of the vitamin.
*** Excellent source of the vitamin.
– No appreciable amount of the vitamin.
? Doubt as to presence or relative amount.
† Evidence lacking or insufficient.
‡ Variable.

The above chart showing the presence or absence of the various vitamins in various common food substances was reproduced in miniature in "Hygeia," page 62, April, 1923 — published by the American Medical Association.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during February. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.66	3.75	33
Anderson, Oscar A	12.58	3.85	12
Antetomasso, Peter	12.98	3.90	10
Barden, R., Creamery Company	14.31	5.15	180
Barron, Clarence W	13.26	4.20	44
Barry, Michael F	12.22	3.65	38
Bemis, Henry E	12.38	3.65	12
Bergmann, John H	13.01	4.03	26
Bolio, Mary J	12.54	4.10	14
Bowditch, Estate, E. F	12.02	3.50	43
Brandley, P. J., & T. J	12.62	3.90	16
Brandon Farms Milk Company	12.52	3.80	36
Burns, James	12.34	3.72	12
Casey, James D	12.85	4.05	134
Cashin, James F	12.19	3.72	160
Cedar Hill Farms, Inc	13.80	5.03	32
Chapin, George L	12.41	3.80	14
Childs Brothers	12.36	3.57	19
Clark, Levi	12.34	3.57	13
Cohen, Benjamin	12.60	3.90	47
Corkery, John H	12.01	3.52	27
Creedon & Crowell	12.73	3.93	15
Cummings, F. S., Company	12.22	3.65	31
Cunningham, Paul	13.29	4.40	16
Cusick, William H	12.45	3.90	14
Deerfoot Farms	12.94	4.10	28
Deneby, Timothy	13.00	4.30	18
Driscoll, William B	12.58	3.80	12
Duggan Brothers	12.32	3.70	24
Edgerly, Frank S	13.02	4.35	92
Elm Spring Farm Company	12.34	3.57	27
English, John	12.82	3.90	122
Ferguson, Malcolm D	12.42	3.77	167
Floyd Milk Company	12.40	3.80	22
Fortune & Allen	12.46	3.78	73

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Furbush, Almon J	12.12	3.52	23
Garvin, Charles E	13.04	5.00	60
Giroux, J. E., & Co	12.32	3.70	120
Griffin, Joseph L	12.42	3.80	12
Griffin Brothers	12.74	3.87	23
Gushee, W. S. & C. W	12.53	3.95	286
Hagar, J. M., & Sons	12.33	3.63	31
Hancock, T. G., & Co	12.56	3.85	39
Herlihy Brothers	12.48	3.80	80
Hickey, Martin J	12.75	4.07	18
Holden, John E	12.52	3.80	14
Hood, H. P., & Sons, Inc	12.44	3.78	47
Jones, W. T., & Co., Inc	12.70	3.90	54
Kendall Brothers	11.94	3.50	56
Kennedy, Robert, Jr	12.54	3.75	12
Kingston, Samuel	12.23	3.55	15
Klaws & Freeman	12.69	3.85	34
Knapp, George J	12.33	3.65	44
Ksyzowoszyi, M	12.15	3.32	46
Lang, Michael J	12.19	3.60	34
Larkin, Patrick	13.63	4.67	32
Larsson, Charles	12.40	3.63	16
Lincoln Farms, Inc	12.36	3.70	20
Lyndonville Creamery Company	12.56	3.67	23
Magee, Nellie A	13.20	3.90	12
Manning, Peter E	12.62	4.00	460
Maple Farm Milk Company	12.36	3.76	177
McAdams, John F	12.27	3.62	34
McGilvray, Charles D	12.94	4.07	10
McKernan, John	12.45	3.92	20
Moore, Peter	12.32	3.60	18
Morgan, George D	11.75	3.40	10
Munchbach, George	12.77	3.85	85
Newton & Pope	12.72	3.75	600
Noble, William F., & Sons	12.90	4.00	14
Rautenberg, Otto G	12.42	3.83	37
Raycraft, Benjamin F	12.81	4.15	115
Robinson, Albert J	12.61	3.85	16
Robinson, James A	12.30	3.50	107
Runkle, John C	14.52	5.00	12

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Schuste, Adam	12.45	3.75	28
Seven Oaks Dairy Company	12.66	3.86	38
Shick, Jacob	12.59	3.85	82
Smith & Lynch	12.52	3.75	33
Somerset Farms	14.86	6.00	21
Sterling Farms Milk Company	12.50	3.71	14
Stone, Howard L.	12.48	3.80	18
Stuart, Wallis E.	12.67	3.75	12
Sullivan, John D.	12.18	3.60	180
Sullivan, John L.	11.88	3.60	14
Turner Centre System	12.64	3.81	165
Upland Farms	14.46	4.90	8
Vartanian, G.	12.20	3.52	209
Vartanian, Setrag	12.17	3.55	20
Walker-Gordon Laboratory Company	12.78	4.10	12
Ware, George H.	12.47	3.62	11
Weiler, E., & Sons	12.59	3.73	61
Werner, Ferdinand	12.28	3.57	124
Westwood Farm Milk Company	12.41	3.65	24
White Brothers	12.85	3.85	280
Whiting Milk Companies	12.18	3.65	88
Whittemore, Warner D.	12.38	3.78	12
Wiswall, Granville A.	12.76	3.90	19
Wittenberg & Co.	12.56	3.80	900
Woodland, Charles	12.06	3.55	12

CHAIN STORES MILK.

Name of Dealer.	Supplied by.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.40	3.71	44
The Cloverdale Company	Turner Centre System, Inc.	12.40	3.60	116
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.58	3.92	14
Co-operative Grocery Company.	J. M. Hagar & Sons	12.52	3.71	38
Economy Grocery Company	Turner Centre System	12.42	3.62	21
First National Stores, Ltd.	Whiting Milk Companies	12.22	3.62	46
Morgan Brothers Company	Whiting Milk Companies	12.41	3.73	18
M. O'Keefe, Inc.	J. M. Hagar & Sons	12.43	3.62	22
Rose Tea Company	H. P. Hood & Sons, Inc., and Whiting Milk Companies.	12.42	3.85	15
M. Winer & Co.	Hyman Winer	12.51	3.68	102

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING FEBRUARY, 1924.

Classification.	Number.	Percentage.
	February.	February.
After death	9	20.00
Seven days or less	1	2.23
Eight to fourteen days, inclusive	1	2.23
Fifteen to twenty-one days, inclusive	—	—
Twenty-two to thirty-one days, inclusive	3	6.67
Within First Month	14	31.13
Within second month	2	4.44
Within third month	2	4.44
Within fourth month	2	4.44
Within fifth month	—	—
Within sixth month	3	6.67
Within seventh month	—	—
Within eighth month	2	4.44
Within ninth month	1	2.23
Within tenth month	—	—
Within eleventh month	1	2.23
Within twelfth month	2	4.44
Within First Year Preceding Death	29	64.46
Within second year	2	4.44
Within third year	2	4.44
More than three years	12	26.66
Totals	45	100.00

ASSOCIATION OF BOARDS OF HEALTH ELECTS OFFICERS.

The Massachusetts Association of Boards of Health at its meeting in January elected the following officers: Dr. George H. Tobey, Clinton, president; Dr. Francis P. Denny, Brookline and John J. McGrath, Salem, vice presidents; Dr. William H. Allen, Mansfield, secretary; Dr. Francis G. Curtis, Newton, treasurer. The following members were elected to the executive committee: Dr. J. U. Paquin, New Bedford; James L. Jordan, Boston; Dr. Charles E. Simpson, Lowell; Dr. M. Victor Safford, Boston, and Edward J. Terham, Holyoke. Representatives to the Massachusetts Central Health Council were chosen as follows: W. G. Kirschbaum, New Bedford, and Dr. William H. Allen, Mansfield.

SUMMARY OF THE WORK, FEBRUARY, 1924.

BUREAU OF ADMINISTRATION.

	Feb.	Jan.
Hearings authorized	0	2
Prosecutions ordered	14	25
Dump applications approved	10	9
Offensive trades approved	1	2
Legal notices	215	265
Lying-In Hospitals certified	0	2
Orders	1	0
Vacate notices	0	2
Day nursery approved	0	7
Special drafts	1	1
Budget transfers	0	1
Forcible removals	2	4

	Feb.	Jan.
Personnel:		
Appointments	3	5
Promotions	1	0
Provisional	0	1
Permanent	2	3
Without pay	0	1
Leaves of absence	0	1
Resignations	1	1
Retirements	4	0
Official visits	0	1
Massage license:		
Revoked	0	1
Offensive trade, permit revoked	1	0

LICENSES, PERMITS, ETC., ISSUED.

	Feb.	Jan.
Burial permits	1,075	1,106
Milk licenses	459	147
Pedlers' licenses:		
Granted	30	155
Hen licenses granted	10	16
Stable permit finally granted	2	2
Provisionally	1	0
Rooster permits	1	0

	Feb.	Jan.
Sausage manufacturing	1	1
Undertaker's license granted	1	1
Denatured alcohol licenses	15	6
Manicure-massage:		
Granted	34	46
Dumps	12	42
Goat permits	1	0

MEDICAL DIVISION.

BUREAU OF COMMUNICABLE DISEASES.

	Feb.	Jan.
Visits:		
By medical inspectors,	1,663	1,464
By veterinarian	205	120
By investigator	290	325
By nurses	4,399	4,185
Cases brought to Boston for treatment	77	84
Deaths investigated	31	20
Nurses' Shick activities	7,493	2,967

	Feb.	Jan.
Medical inspectors' activities:		
Shick tests	2,539	677
Shick readings	3,680	585
Toxin-antitoxin injections	1,274	1,705
Vaccinations	17	9
Vaccination certificates issued	0	9
Antitoxin injections	35	20
Cultures	560	0

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, FEBRUARY, 1924.

SYPHILIS.

Current cases under investigation February 1, 1924	24
New cases assigned during the month	25
Total	49

DISPOSITION OF CASES.

Located:	
Under treatment	1
Placed under treatment	12
Further treatment unnecessary	2
Not located:	
Search abandoned	12
Under investigation February 29, 1924	22
Total	49

GONORRHEA.

Current cases under investigation February 1, 1924	55
New cases assigned during the month	41
Total	96

DISPOSITION OF CASES.

Located:	
Under treatment	6
Placed under treatment	22
Further treatment unnecessary	0
Not located:	
Search abandoned	35
Fraudulent use of name	0
Under investigation February 29, 1924	33
Total	96

SUMMARY.

Current cases under investigation February 1, 1924	79
New cases assigned during the month	66
Total	145

DISPOSITION OF CASES.

Located:	
Under treatment	7
Placed under treatment	34
Further treatment unnecessary	2
Not located:	
Search abandoned	47
Fraudulent use of name	0
Under investigation February 29, 1924	55
Total	145

Form letters mailed to above patients	58
Form letters unclaimed returned from post office	25
Form letters accepted by patients	23
Venereal disease complaints	19
New cases	9
Under investigation February 1, 1924	10
Disposition of complaints:	
Placed under treatment	2
Unable to locate	4

Already under treatment	1
No evidence of disease	2
Under investigation February 29, 1924	10
Visits by investigators	357

HEALTH UNIT (Blossom Street).

	Feb.
Health Department proper:	
Vaccinations	23
Vaccination certificates issued	4
Antitoxin, anti-typhoid, Schick tests and toxin-antitoxin injections,	170
Children examined for camps and day nurseries	10
Visits made by medical inspector	117
Dental Service:	
Number of operations	1,146
Number of dismissals	189
Number of children treated	308
Nutrition Service:	
Number of conferences	4
Attendance at conferences	25
Number of home visits	112
Nose and Throat Service:	
Number of conferences	2
Number of examinations	163
Adenoids and tonsils operations recommended	42
Cases visited by nurses:	
Medical	211
Babies	242
Visits to children of pre-school age	161
Children of school age examined	206
Complaints of insanitary conditions	14
Visitors:	
Resident	15
Nonresident	4
General:	
Persons applying for information	475
Community Health Association:	
Child Hygiene Division:	
New babies admitted	37
Home visits to babies	913
Home visits to children	68
Number of conferences	12
Attendance at conferences	340
General:	
Visits made by nurses	1,897
Posture clinics	7
Attendance	71
Boston Dispensary:	
Calls by district physician	64
Boston Sanatorium:	
Calls by nurses in district	923
Jewish Welfare Center:	
Nutrition conferences:	
Number	4
Attendance	64

	Feb.
Nutrition Classes:	
Number	4
Attendance	64
Habit Forming Clinic:	
Number	4
Attendance	28
Children examined	11
Home visits	21
Home Nursing Classes (Red Cross):	
Number	4
Attendance	65

CHILD HYGIENE DIVISION.

	Feb.	Jan.
Total number of all visits	*3,575*	*4,225*
Visits to new cases	775	1,017
Visits to old cases	2,392	2,745
Ophthalmia cases:		
Visits by Child Hygiene Division	142	118
Visits by Health Unit	26*	14*
Infant mortality investigations	120	161
Maternal death investigations	146	184

* Not included in total number of all visits.

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Feb.	Jan.
New reports	4,353	5,737
Stores inspected	4,863	6,515
Sanitary defects remedied	132	126
Complaints at office	40	46
Referred to Sanitary Division	10	10
Milk applications	66	118
Peddlers:		
Applications for licenses approved	28	33
Vehicles inspected and approved	331	599
Court cases	5	4
Convictions (4 cases continued)	1	4
Fines	10	20
Laboratory Examinations:		
Bacteriological	5	6
Chemical	2	3

CONDEMNATIONS.

NOT REQUESTED.

	Feb.		Feb.
Apples	10 pounds	Dates	10 pounds
Breakfast food	91 packages	Dried pears	25 pounds
Butter	63 pounds	Fig bars	20 pounds
Beef	2 pounds	Frosting	1 jar
Candy	150 pounds	Herring	150 pounds
Cereals	23 packages	Lard	85 pounds
Chicken	6 pounds	Macaroni	60 pounds
Crackers	50 pounds	Mayonnaise	5 jars
Crackers	70 packages	Mustard	3 jars

	Feb.		Feb.
Onions	15 pounds	Spices	6 pounds
Pork	314 pounds	String beans	10 bushels
Poultry	52½ pounds	Sugar	100 pounds
Prunes	25 pounds	Veal	31 pounds
Rolled oats	100 pounds	Vegetables	63 cans
Spices	1 barrel		

LIVE STOCK INSPECTION (Brighton Abattoir).

	Feb.	Jan.		Feb.	Jan.
Cattle inspected	41	109	Sheep inspected	4	41
Calves inspected	2,136	1,496	Parts condemned	254	208
Swine inspected	5,232	5,365	Animals condemned	5	11

DAIRY DIVISION.

	Feb.	Jan.		Feb.	Jan.
Total inspections	916	1,432	Inspection of milk plants and licensed dealers	515	411
Dairies inspected	106	159	Bacteriological examinations	263	845
Scoring above 50 *	91	96	High bacterial counts investigated	10	9
Scoring below	15	63	Country creamery inspections	0	6
With milk rooms	91	67			
Without milk rooms	15	92			
Inactive	22	2			
Total cattle inspected	2,395	3,273			

* Passable mark.

BUREAU OF MILK INSPECTION.

	Feb.	Jan.		Feb.	Jan.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,391	1,578	Milk	764	907
Vinegar	118	129	Ice cream	69	21
Ice cream	0	1	Court cases	26	24
Butter	0	1	Fines	$465	$445
Miscellaneous	11	1			

SANITARY INSPECTION.

	Feb.	Jan.		Feb.	Jan.
Original inspections	977	1,949	Complaints	483	834
New reports	1,876	2,949	Court cases	7	22
Reinspections	5,014	6,820	Vacate notices	1	1
Legal notices served	213	211	Fines	$15	0

BACTERIOLOGICAL LABORATORY.

	Feb.	Jan.
Diphtheria	2,598	2,184
Tuberculosis	264	268
Typhoid	47	50
Gonorrhea	696	749
Gonorrheal Ophthalmia	55	50
Syphilis	1,441	1,554
Other examinations	27*	39
Bacteriological examinations of milk	764	907
Bacteriological examinations of ice cream	69	21

* Dog for rabies, 1; dark field examinations, 1; malaria, 2; feces for typhoid, 1; genito-urinary tuberculosis, 8; rabies, 1; blood for eosinophilia, 3; paratyphoids, 2; spinal fluid for meningitis, 1; candy for poisons, 1; cultures for virulence, 1; cheese for poison, 1; canned spinach for botulinus, 1; vanilla extract for poison, 1; frankfurts for toxin, 1; blood culture for typhoid, 1; spinal fluid for organisms, 1.

VITAL STATISTICS, FEBRUARY, 1924.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING FEBRUARY, 1924, WITH COMPARATIVE FIGURES FOR FEBRUARY, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
All Causes:						
Total deaths	954	1,285	—331	14.74	20.01	—5.27
Nonresidents deducted	807	1,125	—318	12.46	19.41	—6.95
By Age:						
Under one year	136	183	—47	2.10	2.85	—.75
One year to four years, inclusive	51	83	—32	.78	1.29	—.51
Sixty years and over	351	510	—159	5.42	7.94	—2.52
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	72	61	+11	1.11	.95	+.16
Arterio-sclerosis	26	53	—27	.40	.83	—.43
Heart disease	146	211	—65	2.25	3.29	—1.04
Nephritis, chronic	47	72	—25	.73	1.12	—.39
Infant and Maternal Mortality:						
a. Total registered live births	1,487	1,343	+144	22.97	20.92	+2.05
b. Registered stillbirths	49	54	—5	.76	.84	—.08
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	31.90	38.65	—6.75
c. Deaths of mothers from causes incident to childbirth	6	15	—9	.09	.23	—.14
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	3.91	10.74	—6.83
Deaths of children in first year of life	136	183	—47	2.10	2.85	—.75
Deaths in first year per 1,000 live births	.....	.....	.....	91.46	136.26	—44.80
Violence:						
Accidents	30	53	—23	.46	.83	—.37
Homicides	3	3	—	.05	.05	—
Suicides	8	13	—5	.12	.20	—.08
Miscellaneous:						
Alcoholism, acute or chronic	14	25	—11	.22	.39	—.17
Broncho-pneumonia	71	119	—48	1.10	1.85	—.75
Cancer	111	99	+12	1.71	1.54	+.17
Cirrhosis of the liver	4	5	—1	.06	.08	—.02
Diabetes mellitus	15	24	—9	.23	.37	—.14
Diarrhœal diseases, children under two years of age	6	11	—5	.09	.17	—.08

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases...	2	1	+1	.03	.015	+.015
Deaths..	—	1	—1	—	.015	—.015
Cerebro-spinal meningitis.....Cases...	4	4	—	.06	.06	—
Deaths..	1	1	—	.015	.015	—
Diphtheria.....Cases...	319	217	+102	4.93	3.38	+1.55
Deaths..	25	11	+14	.39	.17	+.22
Influenza.....Cases...	14	112	—98	.22	1.74	—1.52
Deaths..	4	23	—19	.06	.36	—.30
Measles.....Cases...	767	390	+377	11.85	6.07	+5.78
Deaths..	2	14	—12	.03	.22	—.19
Pneumonia (lobar).....Cases...	182	247	—65	2.81	3.85	—1.04
Deaths..	55	122	—67	.85	1.32	—.47
Scarlet fever.....Cases...	535	305	+230	8.26	4.75	+3.51
Deaths..	5	5	—	.08	.08	—
Tuberculosis (pulmonary).....Cases...	141	119	+22	2.18	1.85	+.33
Deaths..	52	58	—6	.80	.90	—.10
Tuberculosis (other forms).....Cases...	19	27	—8	.29	.42	—.13
Deaths..	8	12	—4	.12	.19	—.07
Typhoid fever.....Cases...	12	4	+8	.18	.06	+.12
Deaths..	1	—	+1	.015	—	+.015
Whooping cough.....Cases...	50	319	—269	.77	4.97	—4.20
Deaths..	4	25	—21	.06	.39	—.33

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above the estimated population for July 1, 1924 (midyear), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

1559
Rec'd
APR
29
1924
B. P. I

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, APRIL, 1924. NO. 4

DIABETES AND INSULIN.

ELLIOTT P. JOSLIN, M. D., BOSTON, MASS.

Definition.— Diabetes is a disease in which the food is not properly assimilated and in consequence of which sugar appears in the urine. Increased appetite, increased thirst, increased elimination of urine, and loss of weight are the prominent symptoms. These are easily explained, because the patient attempts by eating more to make up for the sugar lost, by drinking more to remove the sugar formed, while loss of weight occurs because the effort of the patient to replace sugar lost in the urine by extra food in the diet fails.

Frequency.— Diabetes is a common disease. There are perhaps a million individuals in the United States who have it or will have it before they die. In Boston and in New York it appears especially frequent, and one out of every fifty deaths in these cities is due to diabetes. The greater frequency in Boston and in New York is not necessarily because these cities are more dangerous to live in than other cities in the country, but rather the reverse. It indicates that in these cities cases of diabetes are discovered and treated

with unusual thoroughness. The amount of insulin used in Boston and its vicinity is nearly twice that of the average for the rest of the country.

Diagnosis.— The diagnosis of diabetes is fortunately simple. It requires no elaborate methods. An examination of the urine reveals the sugar and, save in exceptional cases, no other test is required. A child can perform the test. In doubtful cases it may be necessary to have an examination of the blood as well. Everyone should have the urine examined on his birthday and after fifty years of age twice a year.

So much for the definition, the frequency and the diagnosis of diabetes. Now let us turn our attention to the special subjects which will concern us most, namely:

1. The prevention of diabetes in Boston.
2. The needless deaths from diabetes in Boston.
3. The diet in diabetes.
4. The new treatment of diabetes with insulin.
5. Dogs and diabetes.

1. *The Prevention of Diabetes.*— Diabetes is common in the fat, but rare in the thin. If the people in the United States would only accept as their standard of form and figure the slender ladies and agile gentlemen which serve as fashion's models in our newspapers the Diabetic Club of America would have but a hundred thousand instead of a million members. This populous, if not popular, club is hard to enter unless you are fat. Under the age of fifty years only one thin applicant is accepted for ten who are well nourished, and after the age of fifty, the club is still more exclusive, and only one thin man or woman is enrolled for nineteen who are overweight.

Who wants to be fat after reading the newspapers? The good which newspapers and designers of styles of men's and women's clothes accomplish by their portrayal of slim models of grace and beauty in their columns may not be entirely altruistic, but it is none the less philanthropic. Yet how few of the public realize that all these lithe creatures are examples daily set before them of how to prevent the development of a disease, obesity and its offspring, diabetes. Let us hope the time is not far distant when the Jordans and Jays and all the rest will print above their latest importations the caption, "Follow the Fashions and Be Thin," and beneath the same the words, "Immune to Diabetes."

Obesity explains much that seems queer in the distribution of diabetes in the community. Not infrequently a man and his wife are both attacked. But thin wives with diabetic husbands and thin husbands with diabetic wives need not fear that diabetes is contagious. It is not the exposure of husband to wife or wife to

husband, but rather the exposure of each to real, good food and plenty of it. The frequency of diabetes in brain workers has often attracted attention. Here, too, the explanation lies in lack of exercise and consequent gain of weight. It is harder work for a brain worker to dodge diabetes than for a working man. For the same reason diabetes among the Jewish residents of Boston is two and one half times as common as among the population as a whole, and no wonder. The Hebrew race is not thin. Our more intelligent Jewish citizens recognize this fact, and you will find that they are taking precautions to escape diabetes by the avoidance of obesity.

The explanation of the appearance of diabetes in the thin is not easy. To a certain extent these cases are freaks. Presumably they were born with so strong a tendency to diabetes that it broke out even without the stimulus of becoming fat. Most of these cases are in children and young people, and here one observes not infrequently that the precocious child is the diabetic child. It is with the greatest rarity that you see a stupid diabetic under the age of twenty years. Heredity is not of much influence. Certain cases in children develop when unusual quantities of candy are eaten, but these cases must be rare, because what child is there who has not at some time or other overindulged in sugar?

The avoidance of obesity and the prevention of diabetes are simple problems. All one needs to do is to eat less and walk and work more. Instead of indulging in butter, cream, oil and fat meat, the obese should eat their own fat. Strength can be preserved by securing necessary protein from lean meat and cheese made of skimmed milk. Green vegetables should be substituted for potatoes, rice and macaroni. Fruit should be substituted for desserts. Bread should be reduced to a slice at a meal. The only second helps allowed are lettuce, celery, cabbage, and the like. Take care, however. Do not lose weight too rapidly, because that, too, has its dangers. Consult your doctor.

2. *The Needlessness of Most Diabetic Deaths.*— The number of needless diabetic deaths in Boston is deplorable. These are due to two causes: Diabetic coma and diabetic gangrene or other infections of the feet. Let us first consider diabetic coma. Even before the introduction of insulin, diabetic coma in our best hospitals had been reduced to a minimum, and almost no deaths occurred from this cause, except among those individuals who were already in the early stages of coma when they entered the hospital. Dietetic treatment was so far advanced that a sensible diabetic knew how to avoid coma. The advent of insulin reduced the mortality from coma still more, so that instead of nine tenths of the deaths in children and two thirds of all deaths from diabetes being due to this

cause, the percentage of coma deaths is now reduced to about one fifth. In one hospital in Boston during 1923 there were 582 different diabetics treated and only two succumbed to coma. It is almost impossible to find a case of diabetic coma today which could not have been prevented by simple measures.

Diabetic coma is due to acid intoxication, synonyms of which are acid poisoning and acidosis. Just as overeating leads to the development of diabetes in the predisposed, so overeating leads to diabetic coma when the disease is established. If the diabetic will keep his urine free from sugar, will curb his appetite for all foods, as well as sugar and starch, will take moderate portions of meat, fish, egg and cheese, as well as of fat, coma must disappear. A dietetic orgy precedes coma in the overwhelming majority of cases. If a diabetic should break his diet and simultaneously develop an infection with fever, whether general as pneumonia or local as an abscess, the chances of coma increase tremendously. Fever stimulates the burning of food in the body, and so even if the patient does not eat much at the time of the fever, the fever makes him eat too much of himself, his own protein and fat, and consequently he is eating surplus food. The same effect is produced by an extraordinary amount of exercise. But cases of coma, due to excessive exercise without excessive food, have been so rare in my experience that they can be counted on the fingers of one hand.

The symptoms and signs of diabetic coma are not easy to detect. Consequently all patients should keep sugar-free and then they need not fear it. However, if they feel "sick" from any cause, at any time, they should take for granted that coma may be lurking near and should call a doctor and in the meantime adopt the following precautions: (1) Go to bed. (2) Keep warm. (3) Drink a glassful of hot liquid every hour — water, tea, coffee, broths, or gruels made with hot water. Should the digestion be upset and there be an aversion to oatmeal gruel, patients can substitute orange juice. (4) Secure a nurse or someone in the family to care for you. This is a time to avoid worry and work. Exertion requires the expenditure of food, and the whole aim in the treatment of diabetic coma is to enable the body to get along with as little food as possible. (5) Take an enema. Constipation not uncommonly precedes coma. If the bowels are empty, then, if unable to take liquids by mouth and thus wash the harmful acid out of the body, salt solution can be injected by the rectum, using one teaspoonful of salt for each pint of lukewarm water. (6) When the doctor arrives at the case of diabetic coma, the patient who has followed the above instructions may already have recovered, but it is a good deal better to call the doctor a dozen times too soon than once too late.

The doctor at the bedside of a diabetic patient who is in coma has no easy task. First of all he must ask himself this question: "Is this patient's illness, and perhaps unconsciousness, due to acid poisoning or is this diabetic individual threatened with some other complication such as a shock, meningitis, Bright's disease, or is he suffering from the effects of an accident or a drug?" There are so many diabetics today and they live so long that they are subject to all sorts of complications just as are others in the community, and these must not be overlooked. If he finds the case to be one of true diabetic coma he will give insulin, support the heart with caffein, and may inject salt solution subcutaneously or wash out the stomach.

The second cause of needless diabetic deaths in Boston is gangrene. As a matter of fact diabetes is a foot and mouth disease. Gangrene and infections of the lower extremities were responsible for one fourth of all the diabetic deaths in Boston between the years 1895 and 1913. Last year gangrene and infections caused more than half of all the deaths from diabetes which occurred in four of the larger hospitals in this city. It is true gangrene may occur in a diabetic without an injury to the leg, because occasionally the blood vessels are completely closed, but the overwhelming number of cases of gangrene are due to injuries occurring in unclean feet. An old man or an old woman, with poor eyesight and poor light and a trembling hand, will trim a corn or a callous or cut a toenail and draw a drop of blood. The old scissors or knife which they used were in all probability not sterilized and presumably not even carefully cleansed beforehand. The feet were not soaked and softened and washed so that all particles of dirt were removed before the operation was begun. The injury is slight and a tiny infection results which causes little pain. In a child this would do no great harm, but in an elderly individual with poor blood vessels and poor circulation the infection slowly spreads. It is neglected, perhaps not even seen, and all at once the patient and doctor are surprised to find gangrene, which is often so far advanced that death can be prevented only by amputation of the leg. An old diabetic buys a pair of new shoes and wears them all day. As a result an abrasion of the skin takes place and his leg comes off. An old diabetic wears an old pair of shoes with a torn lining or a nail in the heel and she loses her leg. An old diabetic has cold feet and tries to sleep with an uncovered hot water bag instead of a thick stocking, receives a burn, and his foot is lost. When an injury takes place to the foot, the diabetic knowing the danger may attempt to heal it and do it harm. For example, perhaps he paints the foot with tincture of iodine, of which the standard strength is so strong

that the vulnerable tissues of the diabetic are destroyed, and the sore is made worse rather than better. Still worse, he may have used iodine which has been about the house. Most likely the cork has loosened and the iodine become concentrated, because the alcohol in it has evaporated, and so the danger from it doubles. If tincture of iodine is used at all it should be diluted with an equal part of alcohol. Another diabetic thinks he has rheumatism and winds his foot up in a bandage soaked with chloroform liniment and the next morning wakes to find that the top of his foot is gone and that a month in bed is required for the skin to heal over.

The treatment of injuries and abrasions of the feet was never so good as at present. Prompt care by a doctor will lead to prompt recovery in the vast majority of instances. Massage, passive exercises, the proper use of heat and the stimulating ultra violet ray, with a selection of one of the modern antiseptics of the Dakin group, which have the advantage of not being irritating, work wonders. With all these agencies combined many time as many legs and lives are saved today as heretofore. Yet after all is said prevention is always better than the most skillful treatment and so much less expensive.

A diabetic above the age of fifty years should take a great deal more pains with his feet than his face. The feet should be washed every night and dried between the toes. If there are callouses or corns, these should be rubbed with lanolin. Every other night the feet should be soaked and softened in hot water and soap. Most of the callouses will then disappear if rubbed with a little gauze. Before a diabetic trims his nails, he should clean his feet as if he were a surgeon and about to make an incision in the abdomen. Nails should be cut straight across, and, if brittle and hard, should be softened by treatment day in and day out, night in and night out, as indicated above, using lanolin or boracic acid. Chiropodists are very careful about the feet, but fairness to the chiropodist and safety for the diabetic should lead the patient to say: "I have diabetes. Look out. Do not draw a drop of blood. It might cost me my leg or my life." If the urine is kept free from sugar and the feet are kept clean Boston will have few deaths from diabetic coma and diabetic gangrene during 1924.

3. *The Treatment of Diabetes.*— The diet is the most important factor in the treatment of diabetes. The success which insulin has achieved is largely due to patients who use the drug taking pains to live more carefully upon a diet. The diet in diabetes is simplicity itself. The sugar decreases in the urine and blood so soon as the total amount of food which the patient eats is reduced. The milder cases of diabetes lose their obesity by this simple reduction of diet,

and with the decreased weight the diabetes is controlled. Such patients can be thankful they have diabetes and that it was discovered promptly, because the reduction in weight which they undergo by dieting for it is so advantageous that they outlive by years their fat fellow compatriots who have not developed the disease and so stay fat and die of heart disease and arterio-sclerosis. The detection of diabetes in the fat when properly heeded promotes longevity. Both obesity and diabetes are diseases, the complications of which are those of old age. When the diabetes is properly treated the discomforts of old age can be postponed. Everyone knows that a fat man is a poor insurance risk, because sooner or later disease of the heart, of the blood vessels, of the kidneys may develop, or he will succumb to pneumonia.

Diabetes of a greater intensity is not so easily controlled. These moderately severe and severe diabetics must do more than reduce the total quantity of the diet to rid the urine of sugar. They must reduce the carbohydrate (sugar and starch) which the diet contains. Few realize the amount of sugar which diabetics of moderate and severe degree excrete in the urine. At the present writing two patients are in the hospital whose urine in the twenty-four hours prior to admittance undoubtedly contained three quarters of a pound to a pound of sugar, or the equivalent of one or two barrels of sugar in a year. To get rid of this quantity of sugar in the urine the sugar and starch in the food must be reduced. Is it strange an untreated diabetic is hungry? He eats to supply body needs and to make up for the sugar he loses in the urine.

The sudden reduction of carbohydrate (sugar and starch) in the diet without a corresponding reduction of the protein (meat, fish, eggs, cheese) and fat (butter, cream, oil, and the fat in fat meats) is dangerous, because when anyone, normal or diabetic, goes without carbohydrate or fails to utilize the carbohydrate which he eats, the fat which he has simultaneously consumed fails to be assimilated and, as Woodyatt says, smokes but does not burn. It is from the unburned products of the digestion of fat that acid poisoning develops. Consequently, reduction of carbohydrate in the diet should always be accompanied by reduction of protein and fat.

The diet in health includes a great deal of carbohydrate, and this is the cheapest form of food. When a diabetic is obliged to reduce the carbohydrate he misses the bulk of food and consequently he should select for the carbohydrate he is allowed those foods which are bulky and have little carbohydrate in them. Such foods are the green vegetables and the fruits. The remainder of the diet is made up of the same quantity of protein, or in a severe case of diabetes by less protein than that which another individual of the

patient's size and age would take, and of fat. To compensate for the loss of nourishment in carbohydrate the fat is the constituent of the diet which must be increased most, and this done by increasing the quantity of butter, oil, or the quantity and quality of the cream.

The diet of the average diabetic patient for a day is about as follows:

Breakfast: One half grape fruit or small orange, one tablespoonful of oatmeal, one egg, four crisp strips of bacon, coffee and cream.

Lunch: Vegetable salad or vegetables selected from those which contain 5 per cent or 10 per cent carbohydrate, one egg or a small piece of meat or fish, fruit as at breakfast.

Dinner: Clear soup, vegetables as above, meat, fish or egg as at noon, small orange, one half grape fruit, or a saucer of berries.

The allowance of cream for the day is one half pint, of butter one ounce, and of oil a dessert spoonful.

The diet of a normal individual of the same weight differs from this diabetic diet in that milk is used instead of cream and half the eggs, butter and bacon and all the oil removed from it and in turn replaced with a half pound of bread.

The test and maintenance diets which I employ at the hospital are shown in Table 1. The food value, that is, the amount of carbohydrate, protein and fat contained in thirty grams (one ounce) of these various foods is shown in Table 2.

Certain diabetic patients can add to this diet by taking twice the quantity of fruit, those less severe by doubling the quantity of oatmeal, and still others less severe can substitute a banana for the orange or grape fruit. A few can add a potato of moderate size at noon or night. As for bread, be careful! A doctor's idea of the size of a slice of bread for a diabetic and a diabetic patient's idea of a slice of bread never agree.

The correct quantity of food is determined by an examination of the urine for sugar. This is so simple with the modern Benedict's test that the analysis can be made by a five-year-old child. According to the result of the test the diet is increased or decreased. The rule for the test all modern diabetics know. To a teaspoonful of Benedict's solution in a test tube one adds eight drops of urine and places the test tube in bubbling, boiling hot water for five minutes. The tube is then removed and if clear when cool is free from sugar. If opaque and greenish, a trace of sugar is present. If yellow or red, the sugar amounts to a considerable quantity.

TABLE 1.

INSULIN DIABETIC DIETS.

	Diets.	Total Diet.				Carbohydrate (C).						Protein and Fat (PF).					
		Carbohydrate.	Protein.	Fat.	Calories.	5 Per Cent Vegetables.	Orange.	Oatmeal.	Shredded Wheat.	Uneeda.	Potato.	Egg.	Cream 20 Per Cent Fat.	Bacon.	Butter.	Meat.	
Test.	T. D. 1.....	101	35	43	931	300	300	....	1	2	120	3	120	....	....	.....	1
	T. D. 2.....	66	24	37	693	300	300	....	½	2	.....	2	120	....	....	.....	2
	T. D. 3.....	34	15	30	466	300	200	....	....	....	.....	1	120	....	....	.....	3
Maintenance.	C1+PF1....	14	15	30	386	300	.....	....	....	....	.....	1	120	....	....	.....	1
	C2+PF2....	22	19	37	497	300	100	....	....	....	.....	2	60	....	15	.....	2
	C3+PF3....	32	24	37	557	600	100	....	....	....	.....	2	60	....	15	.....	3
	C4+PF4....	42	29	52	752	600	200	....	....	....	.....	2	60	30	15	.....	4
	C5+PF5....	52	32	66	930	600	200	15	....	....	.....	2	60	30	30	.....	5
	C6+PF6....	64	44	83	1,179	600	200	30	....	....	.....	2	120	30	30	30	6
	C7+PF7....	74	52	88	1,296	600	300	30	....	....	.....	2	120	30	30	60	7
	C8+PF8....	84	61	94	1,426	600	300	30	....	2	.....	2	120	30	30	90	8
	C9+PF9....	98	65	106	1,606	600	300	30	½	2	.....	2	180	30	30	90	9
	C10+PF10..	109	66	119	1,771	600	300	30	1	2	.....	2	180	30	45	90	10
	C11+PF11..	135	80	135	2,075	600	300	30	1	2	120	2	240	30	45	120	11
	C12+PF12..	159	84	135	2,187	600	300	30	1	2	240	2	240	30	45	120	12

Explanation of Test and Maintenance Diets.

The test diets are designed for the period during which the patient becomes gradually sugar free. On successive days advance from Test Diet 1 to Test Diet 3, and even if the patient is not sugar free one can proceed to the Maintenance Diets C1, PF1, C2, PF2, C3, PF3, which have lower carbohydrate, but gradually increasing protein and fat.

The actual articles of food representing the carbohydrate in the diet for the first day are given under the heading of *carbohydrate*, described C1, 2, 3, etc. The articles referred to under *protein* and *fat* are under that heading, PF1, 2, 3, etc.

Certain cases of diabetes can proceed steadily day by day from C1, PF1 to C12, PF12, without showing sugar. If sugar does appear in the urine, drop back two days in the carbohydrate group, wait till sugar free, then advance in the protein and fat group until sufficient calories are obtained. Thus, if sugar shows on C7 PF7 the diet prescribed would be that included in C5 PF7, and thereafter progression could be made in the PF group until twenty-five to thirty calories per kilogram body weight were furnished the patient.

If one wishes to avoid the extra protein of the high PF numbers, stop with PF8, 7, or 6 and secure calories by increasing the 205 cream to 180 cubic centimeters or 240 cubic centimeters or raising the butter to 45 grams. Twenty per cent cream, 30 cubic centimeters equal carbohydrate 1 gram, protein 1 gram, fat 6 grams. Forty per cent cream, 30 cubic centimeters equal carbohydrate 1 gram, protein 1 gram, fat 12 grams. Adults require protein, 1 gram per kilogram body weight, children 2 to 3 grams, severe diabetics two thirds of 1 gram.

TABLE 2.

Water, Clear Broths, Coffee, Tea, Cocoa Shells and Cracked Cocoa can be Taken Without Allowance for Food Content.

FOODS ARRANGED APPROXIMATELY ACCORDING TO CONTENT OF CARBOHYDRATES.

	5 Per Cent.		10 Per Cent.	15 Per Cent.	20 Per Cent.
* Reckon Average Carbohydrate in 5 Per Cent Vegetable as 3 Per Cent; of 10 Per Cent Vegetable as 6 Per Cent.					
	1 to 3 Per Cent.	3 to 5 Per Cent.	10 Per Cent.	15 Per Cent.	20 Per Cent.
Vegetables (Fresh or Canned).	Lettuce.	Tomatoes.	String beans.	Green peas.	Potatoes.
	Cucumbers.	Brussels sprouts.	Pumpkin.	Artichokes.	Shell beans.
	Spinach.	Water cress.	Turnip.	Parsnips.	Baked beans.
	Asparagus.	Sea kale.	Kohl-rabi.	Canned Lima beans.	Green corn.
	Rhubarb.	Okra.	Squash.		Boiled rice.
	Endive.	Cauliflower.	Beets.		Boiled macaroni.
	Marrow.	Eggplant.	Carrots.		
	Sorrel.	Cabbage.	Onions.		
	Sauerkraut.	Radishes.	Green peas, canned.		
	Beet greens.	Leeks.			
	Dandelions.	String beans, canned.			
	Swiss chard.	Broccoli.			
	Celery.	Artichokes.			
	Mushrooms.				
Fruits.	Ripe olives (20 per cent fat).		Strawberries.	Raspberries.	Plums.
	Grapefruit.		Lemons.	Currants.	Bananas.
			Cranberries.	Apricots.	Prunes.
			Peaches.	Pears.	
			Pineapple.	Apples.	
			Blackberries.	Blueberries.	
			Oranges.	Cherries.	

1 gram protein, 4 calories.
1 gram carbohydrate, 4 calories.
1 gram fat, 9 calories.
6.25 grams protein contain 1 gram nitrogen.

1 kilogram equals 2.2 pounds.
30 grams, g., or cubic centimeters, c. c., equal 1 ounce.
A patient "at rest" requires 25 calories per kilogram.

	Carbohydrates. (Grams.)	Protein. (Grams.)	Fat. (Grams.)	Calories. (Grams.)
30 grams, 1 ounce, contain approximately:				
Vegetables, 5 per cent	1	0.5	0	6
Vegetables, 10 per cent	2	0.5	0	10
Shredded wheat	23	3	0	104
Uneedas, two	10	1	1	53
Potato	6	1	0	28
Bread	18	3	0	84
Oatmeal, dry weight	20	5	2	118
Oysters, six	4	6	1	49
Milk	1.5	1	1	19
Meat (cooked, lean)	0	8	5	77
Fish	0	6	0	24
Chicken (cooked lean)	0	8	3	59
Egg, one	0	6	6	78
Cheese	0	8	11	131
Bacon	0	5	15	155
Cream, 20 per cent	1	1	6	62
Cream, 40 per cent	1	1	12	116
Butter	0	0	25	225
Oil	0	0	30	270

Occasionally the patient becomes sugar free on Test Diet 1 or 2. It is then unnecessary to begin with Maintenance Diet C1 PF1. Instead begin with a maintenance diet which contains a value for carbohydrate similar to that of the test diet upon which the patient became sugar free.

The plan is arbitrary and the majority of cases will demand some modification.

Insulin allows more rapid progression, and in one week one often accomplishes what would require two weeks without it.

Another advantage of this best of chronic diseases is the ease with which it can be detected. All that is necessary is an examination of the urine for sugar. The increasing number of individuals examined for life insurance explains why so many cases are discovered. Any diabetic can tell all the members of his family whether sugar is present in the urine or not. Any student in a course in chemistry should learn the test and repay the kindness of his parents in sending him to school by testing their urines as well as his own for sugar. The discovery of Bright's disease and most diseases is not so easy. It is a good rule for everyone to have the urine examined

on his or her birthday, and after fifty years of age to have it examined in January and July. More energy must be exerted to discover this disease. One must hunt for it. How easily new cases of diabetes can be brought to light the subjoined incident will disclose:

March 30, 1920, there came to my office a woman with diabetes. She was given the usual examination with suggestions for treatment, and as it was impracticable for her to enter the hospital she was taught on the spot to examine her urine. She went home and shortly after contracted pneumonia and died. But in the intervening days amid her household cares she found time and took enough interest to examine the urines of ten others in her boarding house, and in so doing discovered the presence of diabetes in a boy. She gave him sound advice and sent him to his own physician, who also subsequently died, and later the boy came to me, telling this story. On the day she learned the Benedict test and made these ten urinary examinations for her friends Louisa Drumm was seventy-nine years and four months old! Can one not appropriately say to younger diabetic patients: "Go thou and do likewise"?

4. *Insulin.*— The discovery of insulin has been a boon to diabetic patients and a comfort to their doctors. It does not cure diabetes. It does not take away from the diabetic patient the opportunity to show that he has courage, honesty, intelligence and obedience, but it does bring back weight, strength of body and mind, and the ability to resume in a large measure one's previous career. The faithful profit with insulin. The careless can die as a result of its misuse. The quantity of insulin used in Boston and vicinity is 90 per cent above the average for the rest of the United States. More than one thousand diabetic patients in Boston depend upon it. Boston doctors can testify that insulin has given immeasurable relief to individuals who have had diabetes for years. The future of insulin no one knows, but already it is evident that it has revolutionized the treatment of the disease.

Insulin enables a diabetic patient to assimilate the sugar and starch of the diet. One unit of insulin allows about as much extra sugar and starch as that contained in an Educator cracker,— namely, two grams,— and one unit costs 2 cents. Life can be made comfortable for all but the severest diabetics with less than twenty units of insulin daily.

The story of insulin is romantic. As far back as 1869 Paul Langerhans, a young man, described certain groups of cells in the pancreas, the sweetbread of an animal, so accurately that they were named the "islands of Langerhans." The use of these cells was overlooked for years until Opie, in Baltimore, in 1901, found that the pancreas of patients dying with diabetes showed disease of these

island cells. The discovery by von Moring and Minkowski twelve years earlier that removal of the whole pancreas of a dog would produce diabetes led to all sorts of attempts to make extracts of the gland and thus treat the disease, but these experiments failed, because the digestive juice, which the whole pancreas produces, overpowered the slight secretion which is formed in the islands of Langerhans. In November, 1920, the thought occurred to Dr. F. G. Banting, of Toronto, upon reading a medical article which described the atrophy of all parts of the pancreas save these island cells, that if he could produce this same condition in a dog and then make an extract of that particular dog's pancreas a secretion of the islands alone would be obtained and this extract might help diabetics where extracts of the whole gland had failed. He associated a medical student, C. H. Best, with him in the undertaking, and in the laboratory of Professor Macleod, which was placed at their disposal, and with the assistance of various other Toronto professors, including Professor Collip, experiments were undertaken to prove their theory. This they soon did. Their first experiments were with animals, with dogs made artificially diabetic, but when they had demonstrated that their extract was satisfactory and safe with animals, Banting tried it on himself and later with diabetic patients. So carefully had Banting and Best and their group of advisers carried on their work that dangerous accidents were avoided and from the first they obtained success, and the world of diabetics now looks to Toronto with gratitude.

Insulin can be obtained today everywhere, and at present is sold under the trade name of "Iletin" by the Eli Lilly Company of Indianapolis, who nearly two years ago put their establishment at the disposal of the Insulin Committee of Toronto. Today a unit at retail can be bought almost anywhere for 2 cents, and with profit to the druggist if his sales are at all abundant. The average patient uses between ten and twenty units a day, so the cost is not prohibitive. Indeed, the cost is wiped out, because of the extra work it allows the patient to perform.

Boston is greatly indebted to Mr. John D. Rockefeller, Jr., of New York, who has given us $15,000 so that needy diabetics can secure insulin at a reduced rate or as a gift. The Eli Lilly Company, too, have been most liberal, and thousands of units have come to Boston free of charge; and I am happy to add that New York has also done another service to Boston. This has been in the form of a donation of $1,500 from the John Chatillon Company, by which their very useful scales have been made available to doctors and patients at a price far below that at which they are sold in the rest of the country.

Insulin must be injected under the skin to be of use. All attempts to give it by mouth or by other methods have failed. As a rule insulin is injected twice a day. Certain individuals require it three times a day and perhaps one out of several hundred diabetics four times a day. About a third of the patients take it once a day.

The use of insulin shortens the period of hospital treatment of diabetics. The average length of stay is now about ten days, and it is by no means necessary for all patients to enter a hospital to take advantage of this remedy. The use of insulin has stimulated an interest in learning the diabetic diet, and so many more patients know what to eat now than formerly that an increasing number find that they can keep sugar free and in good condition upon the diet alone. I suspect that about a quarter of all patients who have received insulin during the last three months have been able to give it up — not that they have been cured of diabetes, but because dietary restrictions alone are adequate for their mild cases.

Two dangers exist in the employment of insulin. A patient may increase his diet by means of it and then suddenly give it up, keep on eating, and the diabetes, uncontrolled, then returns, leads to acid poisoning and death. If a diabetic patient gives up insulin suddenly, it is essential for him to cut his diet in half and ask his doctor for medical advice. The other danger from insulin is known as an insulin reaction. An overdose of insulin is as harmful as an overdose of morphine. When too much insulin is taken the blood sugar falls to below normal and the patient experiences unusual hunger, may perspire profusely, may experience a sensation of trembling, and, if unchecked, the reaction may end in unconsciousness and a fatal issue. Recovery from such a state seems almost miraculous, because it takes place when a little carbohydrate, often in the form of an orange or one or two teaspoonfuls of sugar, is administered. In five minutes the symptoms may have passed.

In closing, I have had some children show how the Benedict test is performed, and to tell of what the diabetic diet is composed. I might add some of these children give insulin to themselves. One child had his dog, because every diabetic child should have a dog.

A dog is a diabetic's thoughtful friend.

A dog never says to a diabetic, "You are thin," never speaks about his diet, never tempts him to break it and to eat a little more, never refers to the delicacies he himself has eaten or the good bones he expects to eat, in fact, never implies by any sign or action in public or in private that he knows his master has diabetes. A diabetic is never embarrassed by his dog. How often he wishes his friends were as considerate!

A dog is a diabetic's teacher. His dog shows the diabetic how to rest and sleep at odd moments, shows him how to exercise and play, indicates the value of sunshine, and sets him a good example by cleaning his paws every night. A dog is cheerful. The friends of diabetics sometimes wish that diabetics would take lessons from a dog.

From experiments on a dog Minkowski found out that diabetes originated in the pancreas. From experiments on a dog Allen learned that undereating helped and overeating harmed diabetics. From experiments on a dog Banting and Best discovered insulin.

When I see a little boy, and his dog, and their devotion to one another I am reminded of the remaining 999,999 diabetics and future diabetics in the United States who may not be holding a dog in their arms, but who are alive today or will be alive in the future, enjoying better health and happiness, all because a few dogs through the instrumentality of multitudes of scientific workers have revolutionized the treatment of diabetes. Would you want to be a member of a society which has for its object the prevention of a dog saving the life of a child? Do you think this dog would want to join that society?

OBITUARY.

Dr. Philip Castleman, deputy commissioner, Laboratory Division, Boston Health Department, died as the result of an accident which occurred at the corner of Massachusetts and Commonwealth avenues, Boston, March 31, an automobile injuring him so severely as to cause his death early the following morning.

Dr. Philip Castleman, 483 Beacon street, Boston, was born in Russia, May 17, 1882. He was a graduate of Boston English High School and the Massachusetts Institute of Technology, and spent two years at Lawrence Scientific School, Harvard University, from which he received B. S. degree in 1906. He also received the degrees of M. S. and M. D. from George Washington University in 1911. He was instructor at Harvard Medical School and at Massachusetts Institute of Technology. For five years he was employed in the bio-chemic division of the Interior Department of the United States Government, and for one year was in charge of the Indian Reservation Hospital in medical work in the United States Department of the Interior. In 1913 he was appointed a bacteriologist in the Boston Health Department, and in 1914 was promoted to the position of assistant director and in 1915 as director of the Bacteriological Laboratory of the Health Department. In 1917

he was appointed deputy commissioner in charge of the Laboratory Division of the Health Department.

Doctor Castleman's connections with the various medical and fraternal organizations were as follows: Member of the Massachusetts Association of Boards of Health, the American Public Health Association, the American Society of Bacteriologists, the American Medical Association, the Massachusetts Medical Society, the Suffolk Medical Society, the Boston Bacteriologists' Club, the Technology Club, the New Century Club, the Boston Lodge of Elks; and was the founder and president of the Greater Boston Medical Society, the chairman of the People's Relief Society, on the hospital staff of the Beth Isreal Hospital, and one of the Board of Directors of the Federated Jewish Charities.

During Doctor Castleman's service in the Health Department he showed marked aptitude for his specialty, bacteriology. His keen interest in operating the laboratory to the best interests of the physicians of the community evidenced itself in an untiring effort to improve methods of examination, by conducting research investigations, and comparing his methods with those of other well recognized laboratories. A keen grasp of preventive medicine and a natural intelligence and ability found in him a combination of knowledge that ably fitted him for his profession. Though he was a serious man, and a strict disciplinarian, Doctor Castleman had a very likeable personality.

OUR RELATIONS WITH THE MEDICAL PROFESSION.

There is today a better understanding than ever before on the part of the practising physicians of Boston regarding the methods and purposes of the Health Department in dealing with cases of communicable diseases. Most practising physicians in Boston have come to realize that the Health Department at present offers them a real service and help in meeting their professional obligations to a patient suffering with a communicable disease and his family. The monthly report of our laboratory in the "Monthly Bulletin" of the department gives an indication of the extent to which our laboratory facilities are being utilized by the medical profession. In addition, probably two hours never pass that some physician does not call up the Health Department on the telephone seeking some professional information or advice which we regard as our function to try to provide.

The ideal in our official relations with the medical profession has however not yet been absolutely realized. For instance, we are

even now carefully watching with a view to obtaining evidence which will assure court convictions, several physicians whom we suspect of trying to increase their professional practise by letting it be understood that if called to attend a contagious disease they will not report the case to the Health Department as required by the statutory laws of this state. On the other hand we ourselves may fall short of the ideal. For example, we are not yet able to guarantee that the inspectors and nurses sent out to secure the observance of laws and regulations intended for the protection of the public against the spread of contagious diseases are always going to perform their duties in a manner pleasing to a practising physician or his patient or to the family. Our medical inspectors and nurses are after all only human, and it is really surprising that the complaints received regarding the performance of their duties should so often prove on investigation to be unjustifiable and unreasonable. The complaints regarding our nurses are practically of the same character as that indicated by a letter which it is customary for the Health Commissioner of New York City to send to complaining physicians. As this letter serves both to show precisely the attitude of the Health Commissioner of Boston with respect to the matter, and to indicate that our troubles are not local, the letter referred to is reproduced below.

"My Dear Doctor,— Your complaints in regard to the action of nurses who have been sent by the Bureau of Preventable Diseases to supervise the quarantine and isolation of cases under your care have come to my attention. I desire to assure you that there is nothing in the work of the nurses of this department that I so much insist upon as an attitude of proper deference and courtesy toward private physicians. That, above all things else, is drilled into our nurses in the course of their training here. Very frequently patients exaggerate or distort very innocent statements which nurses may casually make, or which they are obliged to make, according to law, in order to secure the use of every reasonable precaution to prevent the spread of communicable disease. Frequently, physicians give advice to their patients with reference to isolation and quarantine, which is at variance with our rules. In such instances the nurse is compelled to use the utmost tact in insisting upon the observance of our regulations. You can readily understand that the safety of the city depends in no small measure upon the alertness of our nurses. Their position is a difficult and delicate one. The misinterpretations which are placed upon their conduct by persons who are resentful of legal restrictions, are frequently communicated to the physicians in attendance and may give rise to an unwarranted feeling of resentment.

"I am writing this special note to you because I am anxious that you should not mistake the attitude of the Department of Health as one of antagonism, veiled or direct, toward any practicing physician. On the contrary, as a physician, I am studiously anxious to safeguard the prerogatives of my confreres. While I know that among a staff of several hundred nurses there must be some who occasionally say and do injudicious things, and while I do not for a moment claim that they are uniformly and constantly perfect in their conduct, I do think that, by and large, they are performing a very difficult and delicate task in a very creditable way and deserve the good opinion and co-operation of every physician in this city. The nurses of the Bureau of Preventable Diseases hold the front trenches in our constant and unrelenting warfare upon communicable disease. They aim to be allies of the practising physician in the control of such disease.

"I trust that in the light of this explanation you will look with a kindly eye upon our nurses in your future dealings with them, and I assure you that I will at all times be ready to use severe disciplinary measures if it should be proved that a nurse has exceeded her authority in any home that she is required to visit."

STUDY OF FINANCIAL SUPPORT FOR SOCIAL WORK.

If the individual method of securing financial support for social work has shown uniformly throughout the United States that it costs on the average between fifteen and twenty-five cents to collect each dollar, there is a plain duty resting upon the Boston Council agencies, with economy as one of their declared objects; to study carefully the whole question of financial support of our service.

We may find no better way of securing our funds than we now follow, least of all may we find newer methods in other cities applicable to Boston. But that we should make the analysis there can be no question.

The Boston Chamber of Commerce has placed an appropriation of $3,000 in the hands of a highly competent and fair-minded committee to help us make this study. The social agencies of Boston with a national reputation for good works dearly earned and therefore the more worthy to be maintained, should come forward with every tender of assistance to the Chamber committee. *It should be a joint study.* Plain speaking, common sense and whole-hearted effort should be agreed upon as its principles of procedure.— *Boston Council of Social Agencies.*

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during March. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.24	3.55	62
Anderson, Oscar A	12.46	3.72	26
Antetomasso, Peter	12.67	3.80	13
Barden, R., Creamery Company	13.88	4.95	530
Barron, Clarence W	14.20	5.00	10
Barry, Michael F	12.18	3.65	600
Bemis, Henry E	12.39	3.76	38
Bergmann, John H	12.76	3.93	65
Bolio, Mary J	12.89	4.20	86
Bowditch, E. F., Estate	12.34	3.80	12
Brandley, P. J. & T. J	12.68	4.00	16
Brandon Farms Milk Company	12.53	3.90	384
Burns, James	12.01	3.55	94
Casey, James D	12.62	3.75	60
Cashin, James F	12.16	3.65	28
Cedar Hill Farms, Inc	13.63	4.55	5
Chapin, George L	12.31	3.65	23
Childs Brothers	12.32	3.56	55
Clapp, Frank L	12.24	3.50	30
Clark, Levi	12.24	3.60	30
Cohen, Benjamin	12.53	3.65	148
Corkery, John H	12.28	3.50	245
Creedon & Crowell	12.55	3.80	46
Cummings, F. S., Company	12.12	3.65	19
Cunningham, Paul	13.84	4.80	18
Cusick, William H	11.79	3.40	50
Deerfoot Farms, Inc	12.90	4.10	9
Denehy, Timothy	13.16	4.25	30
Driscoll, William B., Company	12.30	3.70	12
Duggan Brothers	12.52	3.80	18
Edgerly, Frank S	12.42	3.75	28
Elm Spring Farm Milk Company	12.46	3.71	273
English, John	12.12	3.80	960
Ferguson, Malcolm D	12.76	3.80	240
Floyd Milk Company	12.36	3.83	113

Name of Dealer.	Solids.	Fat.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Fortune & Allen	12.67	3.95	52
Furbush, Almon J	11.54	2.80	17
Garvin, Charles E	12.66	4.30	16
Giroux, J. E., & Co	12.10	3.55	139
Griffin, Joseph L	12.60	3.86	16
Griffin Brothers	12.72	3.80	60
Gushee, W. S. & C. W	12.25	3.61	10
Hagar, J. M., & Sons	12.43	3.65	77
Hancock, T. G., & Co	12.50	3.80	20
Herlihy Brothers	12.24	3.63	362
Hickey, M. J	12.68	3.95	35
Holden, John E	12.63	3.81	56
Hood, H. P., & Sons, Inc	12.45	3.83	112
Jones, William T., & Co., Inc	12.46	3.83	150
Kendall Brothers	12.29	3.62	52
Kennedy, Robert J., Jr	12.24	3.77	47
Kingston, Samuel	12.57	3.90	65
Klawa & Co	12.36	3.55	38
Knapp, George J	12.32	3.72	126
Lang, Michael J	12.44	3.77	398
Larkin, Patrick	13.44	4.45	44
Larsson, Charles	12.20	3.50	23
Lincoln Farms, Inc	12.76	3.80	12
Lyndonville Creamery Company	12.56	3.60	51
Magee, Nellie A	13.28	4.00	600
Manning, Peter E	12.33	3.57	140
Maple Farm Milk Company	12.61	3.70	644
McAdams, John F	12.30	3.70	162
McGilvray, Charles D	12.38	3.78	232
McKernan, John	12.19	3.62	8
Moore, Peter	12.24	3.62	80
Morgan, George D	13.40	5.20	32
Munchbach, George	12.58	3.67	46
Newton & Pope	12.54	3.65	55
Noble, William F., & Sons	12.57	3.80	18
Rautenberg, Otto G	12.45	3.90	27
Raycraft, Benjamin F	12.41	3.67	30
Robinson, Albert J	12.27	3.62	14
Robinson, James A	12.12	3.60	286
Runkle, John C	12.96	4.00	20

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Schuste, Adam	12.42	3.77	34
Seven Oaks Dairy Company	12.54	3.83	12
Shick, Jacob	12.65	3.92	150
Smith & Lynch	12.40	3.60	170
Somerset Farms Milk Company	13.26	4.55	8
Sterling Farms Milk Company	12.39	3.61	31
Stone, H. L.	12.39	3.75	65
Stuart, Wallis E.	12.61	3.75	21
Sullivan, John D.	12.76	3.95	10
Sullivan, John L.	12.02	3.60	38
Turner Centre System, Inc.	12.56	3.83	157
Upland Farms Milk Company	14.06	4.60	12
Vartanian, Gazar	12.28	3.67	25
Vartanian, Setrag	12.18	3.62	27
Walker-Gordon Milk Laboratory Company	12.80	4.00	8
Ware, George H.	12.46	3.70	4
Weiler, E., & Sons	12.46	3.76	34
Werner, Ferdinand	12.34	3.67	51
Westwood Farm Milk Company	12.34	3.66	26
White Brothers	12.38	3.75	70
Whiting Milk Companies	12.01	3.53	134
Whittemore, Warner D.	12.30	3.77	15
Wiswall, Granville A.	12.67	3.90	14
Wittenberg & Co	12.50	3.82	26
Woodland, Charles	12.32	3.65	20

CHAIN STORES MILK.

Name of Dealer.	Supplied by	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.20	3.68	102
The Cloverdale Company	Turner Centre System, Inc.,	12.60	3.90	600
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.68	4.03	414
Co-operative Grocery Company,	J. M. Hagar & Sons	12.42	3.75	32
Economy Grocery Stores Company.	Turner Centre System, Inc.,	12.42	3.75	224
First National Stores, Ltd.	Whiting Milk Companies	12.00	3.53	133
Morgan Brothers Company	Whiting Milk Companies	12.23	3.66	33
M. O'Keeffe, Inc.	J. M. Hagar & Sons	12.47	3.73	36
Rose Tea Company	H. P. Hood & Sons, Inc., and Whiting Milk Companies.	12.34	3.71	22
M. Winer & Co.	Hyman Winer	12.48	3.58	207

SUMMARY OF THE WORK, MARCH, 1924.

BUREAU OF ADMINISTRATION.

	Mar.	Feb.
Hearings authorized,	2	0
Prosecutions ordered	4	14
Dump applications approved	7	10
Dump applications disapproved	1	0
Offensive trades approved	0	1
Legal notices	244	215
Orders	0	1
Vacate notices	1	0
Day nursery approved	1	0
Special drafts	0	1
Forcible removals	0	2

	Mar.	Feb.
Personnel:		
Appointments	0	3
Transfers	3	0
Promotions	1	1
Provisional	1	0
Provisional appointment extended	1	0
Permanent	4	2
Regulations	1	0
Resignations	2	1
Retirements	1	4
Offensive trade, permit revoked	0	1

LICENSES, PERMITS, ETC., ISSUED.

	Mar.	Feb.
Burial permits	1,157	1,075
Milk licenses	1,370	459
Beverage licenses granted	4	0
Pedlers' licenses granted	80	30
Hen licenses granted	792	10
Stable permit finally granted	2	2
Provisionally	1	1
Stable rights revoked	1	0

	Mar.	Feb.
Rooster permits	2	1
Undertaker's license granted	2	1
Denatured alcohol licenses	3	15
Manicure-massage:		
Granted	40	34
Dumps	11	12
Goat permits	0	1

MEDICAL DIVISION.

BUREAU OF COMMUNICABLE DISEASES.

	Mar.	Feb.
Visits:		
By medical inspectors,	1,561	1,663
By veterinarian	206	205
By investigator	293	290
By nurses	4,898	4,399
Cases brought to Boston for treatment	94	77
Deaths investigated	13	31
Nurses' Schick activities	25,798	7,493

	Mar.	Feb.
Medical inspectors' activities:		
Schick tests	11,553	2,539
Schick readings	9,434	3,680
Toxin-antitoxin injections	4,811	1,274
Vaccinations	15	17
Antitoxin injections	6	35
Cultures	0	560

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, MARCH, 1924.

SYPHILIS.

Current cases under investigation March 1, 1924	22
New cases assigned during the month	26
Total	48

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	16
Further treatment unnecessary	0
Not located:	
Search abandoned	7
Under investigation March 31, 1924	25
Total	48

GONORRHEA.

Current cases under investigation March 1, 1924	33
New cases assigned during the month	80
Total	113

DISPOSITION OF CASES.

Located:	
Under treatment	9
Placed under treatment	19
Further treatment unnecessary	2
Not located:	
Search abandoned	37
Fraudulent use of name	1
Under investigation March 31, 1924	45
Total	113

SUMMARY.

Current cases under investigation March 1, 1924	55
New cases assigned during the month	106
Total	161

DISPOSITION OF CASES.

Located:	
Under treatment	9
Placed under treatment	35
Further treatment unnecessary	2
Not located:	
Search abandoned	44
Fraudulent use of name	1
Under investigation March 31, 1924	70
Total	161
Form letters mailed to above patients	58
Form letters unclaimed returned from post office	20
Form letters accepted by patients	38
Venereal disease complaints	17
New cases	7
Under investigation March 1, 1924	10
Disposition of complaints:	
Placed under treatment	1
Search abandoned	6
Under investigation March 31, 1924	10
Visits by investigators	358

HEALTH UNIT (Blossom Street).

Health Department Proper.	Mar.
Vaccinations	16
Vaccination certificates	4
Antitoxin, antityphoid, Schick toxin-antitoxin given	52
Children examined for camps and day nurseries	5
Visits by medical inspectors	105
Dental Service:	
Number of operations	1,366
Number of dismissals	125
Number of children treated	592
Nutrition Service:	
Number of conferences	4
Conference attendance	23
Number of home visits	86
Nose and Throat Service:	
Number of conferences	4
Number of examinations	242
Adenoids and tonsils, operations recommended	50
Nurses' Visits:	
Communicable diseases	196
Babies	581
Children of pre-school age	173
Children of school age examined	440
Miscellaneous:	
Complaints of insanitary conditions	14
Information requests	365
Resident visitors	5
Non-resident visitors	10

Community Health Association.	Mar.
General:	
Home visits by nurses	2,230
Posture classes	9
Posture class attendance	154
Child Hygiene Division:	
Number of conferences	12
Conference attendance	389
New babies admitted	35
Home visits to babies	1,150
Home visits to children	113
Boston Dispensary:	
Calls by district physician	70
Boston Sanatorium:	
Calls by nurses in district	970
Jewish Welfare Center:	
Nutrition conferences:	
Number	4
Attendance	77
Nutrition Classes:	
Number	4
Attendance	77
American Red Cross:	
Home Nursing Classes:	
Number	5
Attendance	72
State Department of Mental Diseases:	
Habit forming clinics	5
Attendance	30
Home visits	34

CHILD HYGIENE DIVISION.

	Mar.	Feb.
Total number of all visits	*4,153*	*3,575*
Visits to new cases	1,039	775
Visits to old cases	2,732	2,392
Ophthalmia cases:		
Visits by Child Hygiene Division	168	142
Visits by Health Unit	*56	*26
Infant mortality investigations	130	120
Maternal death investigations	57	146
Special visits	27	0

* Not included in total number of all visits.

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Mar.	Feb.
New reports	4,622	4,353
Stores inspected	4,964	4,863

	Mar.	Feb.
Sanitary defects remedied	60	132
Complaints at office	28	40
Referred to Sanitary Division	13	10
Milk applications	76	66
Peddlers:		
Applications for licenses approved	81	28
Vehicles inspected and approved	542	331
Court cases	6	5
Convictions (4 cases continued in February)	3	1
Fines	$150	10
Laboratory Examinations:		
Bacteriological	3	5
Chemical	8	2

CONDEMNATIONS.

Not Requested.

	Mar.		Mar.
Apples	½ bushel	Kale	1 barrel
Bread	6 loaves	Ketchup	43 bottles
Beef	694 pounds	Lamb	35 pounds
Beets	1 bushel	Lamb	2 carcasses
Cabbage	20 pounds	Milk	7 quarts
Carrots	1 bushel	Peaches	168 cans
Condensed milk	3 cans	Peanut butter	6 pounds
Corn meal	24 pounds	Puffed wheat	5 pounds
Cheese	2 pounds	Pork	29 pounds
Cream	2 pints	Poultry	38 pounds
Eggs	9 dozen	Sausage	856 pounds
Fish	110 pounds	Scallops	9 gallons
Fowl	25 pounds	Soup	23 cans
Figs	6 pounds	Spinach	1 bushel
Flour	122 pounds	Spinach	15 cans
Fresh shoulder	8 pounds	Turnip	1 bushel
Grape fruit	½ crate	Veal	64 pounds
Herring	75 pounds		

LIVE STOCK INSPECTION (Brighton Abattoir).

	Mar.	Feb.		Mar.	Feb.
Cattle inspected	61	41	Sheep inspected	0	4
Calves inspected	5,565	2,136	Parts condemned	243	254
Swine inspected	5,102	5,232	Animals condemned	1	5

DAIRY DIVISION.

	Mar.	Feb.		Mar.	Feb.
Total inspections	2,162	916	Inspection of milk plants and licensed dealers	297	515
Dairies inspected	264	106			
Scoring above 50 *	170	91	Bacteriological examinations	1,545	263
Scoring below	94	15			
With milk rooms	156	91	High bacterial counts investigated	26	10
Without milk rooms	108	15			
Inactive	14	22	Country creamery inspections	16	0
Total cattle inspected	3,662	2,395			

* Passable mark.

BUREAU OF MILK INSPECTION.

	Mar.	Feb.		Mar.	Feb.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,534	1,391	Milk	788	764
Vinegar	68	118	Ice cream	72	69
Ice cream	0	0	Court cases	19	26
Butter	2	0	Fines	$210	$465
Miscellaneous	9	11			

SANITARY INSPECTION.

	Mar.	Feb.		Mar.	Feb.
Original inspections	3,148	977	Complaints	608	483
New reports	2,764	1,876	Court cases	3	7
Reinspections	5,761	5,014	Vacate notices	1	1
Legal notices served	198	213	Fines	$0	$15

BACTERIOLOGICAL LABORATORY.

	Mar.	Feb.
Diphtheria	2,036	2,598
Tuberculosis	312	264
Typhoid	42	47
Gonorrhea	730	696
Gonorrheal Ophthalmia	67	55
Syphilis	1,379	1,441
Other examinations	*24	27
Bacteriological examinations of milk		764
Bacteriological examinations of ice cream		69

* Cat for rabies, 1; dark field examinations, 1; malaria, 4; feces for typhoid, 3; genito-urinary tuberculosis, 8; rabies, 1; blood for eosinophilia, 2; candy for poisons, 1; beef for poison, 4; spinach for poison, 1; spinal fluid for meningitis, 1; urine for typhoid, 1.

INFANT MORTALITY STATISTICS RECEIVED FROM TEN LARGEST CITIES IN UNITED STATES FOR 1923.

City.	Births.	Deaths.	Rates.
New York	129,160	8,578	66.4
Cleveland	20,815	1,396	67.1
Los Angeles	16,786	1,178	70.17
Philadelphia	40,873	3,214	78.63
Boston	18,830	1,568	83.27
Baltimore	17,880	1,499	83.8
Detroit	28,114	2,467	87.7
Pittsburgh	15,421	1,471	95.3

NOT IN BIRTH REGISTRATION AREA.

City.	Births.	Deaths.	Rates.
St. Louis	15,226	1,056	69.2
Chicago	55,935	4,883	87.3

VITAL STATISTICS, MARCH, 1924.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING MARCH, 1924, WITH COMPARATIVE FIGURES FOR MARCH, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
All Causes:						
Total deaths	1,008	1,236	—228	15.57	19.25	—3.68
Nonresidents deducted	829	1,055	—226	12.80	16.43	—3.63
By Age:						
Under one year	129	169	—40	1.99	2.63	—.64
One year to four years, inclusive	48	87	—39	.74	1.35	—.61
Sixty years and over	389	483	—94	6.01	7.52	—1.51
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	57	65	—8	.88	1.01	—.13
Arteriosclerosis	34	54	—20	.53	.84	—.31
Heart disease	170	194	—24	2.63	3.02	—.39
Nephritis, chronic	59	67	—8	.91	1.04	—.13
Infant and Maternal Mortality:						
a. Total registered live births	1,670	1,751	—81	25.80	27.27	—1.47
b. Registered stillbirths	58	48	+10	.90	.75	+.15
Stillbirths per 1,000 births and stillbirths	—	—	—	33.56	26.68	+6.88
c. Deaths of mothers from causes incident to childbirth	17	15	+2	.26	.23	+.03
Deaths of mothers per 1,000 births and stillbirths	—	—	—	9.84	8.34	+1.50
Deaths of children in first year of life	129	169	—40	1.99	2.63	—.64
Deaths in first year per 1,000 live births,	—	—	—	77.24	96.52	—19.28
Violence:						
Accidents	48	47	+1	.74	.73	+.01
Homicides	2	3	—1	.03	.05	—.02
Suicides	4	13	—9	.06	.20	—.14
Miscellaneous:						
Alcoholism, acute or chronic	13	23	—10	.20	.36	—.16
Broncho-pneumonia	57	109	—52	.88	1.70	—.82
Cancer	112	108	—4	1.73	1.68	+.05
Cirrhosis of the liver	4	4	—	.06	.06	—
Diabetes mellitus	18	26	—8	.28	.40	—.12
Diarrheal diseases, children under two years of age	9	8	+1	.14	.12	+.02

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis ..... Cases	2	—	+2	.03	—	+.03
Deaths	—	—	—	—	—	—
Cerebrospinal meningitis ..... Cases	4	4	—	.06	.06	—
Deaths	2	1	+1	.03	.015	+.015
Diphtheria ..... Cases	267	296	—29	4.12	4.61	—.49
Deaths	18	18	—	.28	.28	—
Influenza ..... Cases	24	54	—30	.37	.84	—.47
Deaths	4	24	—20	.06	.37	—.31
Measles ..... Cases	828	539	+289	12.79	8.39	+4.40
Deaths	8	11	—3	.12	.17	—.05
Pneumonia (lobar) ..... Cases	185	169	+16	2.86	2.63	+.23
Deaths	60	82	—22	.93	1.28	—.35
Scarlet fever ..... Cases	521	388	+133	8.05	6.04	+2.01
Deaths	7	13	—6	.11	.20	—.09
Tuberculosis (pulmonary) ..... Cases	172	128	+44	2.66	1.99	+.67
Deaths	66	64	+2	1.02	1.00	+.02
Tuberculosis (other forms) ..... Cases	35	25	+10	.54	.39	+.15
Deaths	8	12	—4	.12	.19	—.07
Typhoid fever ..... Cases	8	6	+2	.12	.09	+.03
Deaths	1	—	+1	.015	—	+.015
Whooping cough ..... Cases	53	448	—395	.82	6.98	—6.16
Deaths	—	23	—23	—	.35	—.35

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1,..... (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

1559
Rec'd
JUN
B. P. L

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, MAY, 1924. No. 5

A NEW TREATMENT FOR INFECTIONS OF THE RESPIRATORY TRACT.

If inflammations of the respiratory mucous membrane are produced or kept up by bacteria, why should not the application to the mucous membrane of liquids or gases which will kill these bacteria be a logical treatment? It is, and has long been so recognized. For some reasons, however, which we can understand and perhaps also because of some factors which we do not yet understand, attempts at the disinfection of mucous membrane have hitherto not produced the curative results which it would seem might be expected.

It may be practically impossible by means of a spray to spread a disinfecting liquid over the full extent of an infected and inflamed mucous membrane. Even with a gaseous disinfectant this may also be impossible, as for example, when in infections of the upper respiratory tract sinuses may be involved or air passages occluded by the swelling of the inflamed mucous membrane. The surface of the inflamed respiratory mucous membrane is always more or less covered by secretions which serve to protect the underlying bacteria from bacteriacidal agents. Moreover, the cure of a well established

"cold in the head" or bronchitis, for example, involves something more than the killing of bacteria. It does not take long for infecting bacteria to produce damage to the mucous membrane which requires considerable time for nature to repair, even if the bacteria should all be destroyed. Then, too, there is the great problem of finding a disinfectant which will really sterilize and not make matters worse by irritating or otherwise injuring the mucous membrane. Liquid sprays generally used in the treatment of infections of the respiratory tract undoubtedly accomplish this purpose to some extent besides directly and indirectly promoting the removal of abnormal secretions, but it would seem logical to look for better results from the use of some gaseous disinfectant.

Among other gaseous agents both formaldehyde and chlorine gas have been used in the treatment of infections of the respiratory tract by various experimenters. The inhalation of dilute formaldehyde gas has acquired some reputation for efficacy in preventing or aborting "colds in the head" and from time to time favorable reports have been heard from the more extended use of chlorine gas in the treatment of infections of the respiratory tracts but neither patients nor physicians have exhibited any great degree of enthusiasm over the results of the use of either of these gases.

The recent experiments, however, of two United States Army medical officers * with chlorine certainly serves to raise hope anew that an efficacious and harmless means of disinfection of the respiratory tract may at last have been found.

These medical officers, Lieutenant Colonel Vedder and Captain Sawyer state that they were led to undertake their experiment by reason of the fact that none of the employees of the chlorine plant at the Edgewood Arsenal, M. D., came down with the influenza during the great epidemic while the hospitals were filled with the sick from other parts of the establishment.

Laboratory work supplemented by experiments on human beings showed that the inhalation of chlorine for an hour in the concentration of approximately 0.02 milligram per liter, or in other words, in the proportion of about ten parts to one million parts of air, could be depended on to result in no culture growths from swabs brushed over the surface of the mucous membrane of the nose and throat, including the tonsilar area. As chlorine in this concentration was found to cause a slight irritation of the throat in some persons when continued for an hour, a concentration of 0.015 milligram per liter was used in actual treatment and gave no harmful or disagreeable effects. It was assumed that the chlorine being very

* Chlorine as a therapeutic agent in certain respiratory diseases, by Lieut. Col. Edward B Vedder, M. D., and Capt. Harold P. Sawyer, M. D., Medical Corps, United States Army, "Journal of the American Medical Association," March 8, 1924.

soluble in water was taken up by the secretion covering the mucous membrane thus converting the secretion into a bacteriacidal solution. It was not believed, however, that chlorine thus applied penetrated the tissues appreciably, nor that it would sterilize "tonsilar crypts or other deep seated infections."

The number of cases treated was not large, but the results seem sufficient to justify a belief in the therapeutic value of the procedure. To quote the experimenters, "The results obtained were very gratifying both to the patients and ourselves. There seems to be little doubt that such chlorine treatment will completely abort a cold when taken sufficiently early and in well developed cases it affords great relief. Acute bronchitis is practically always relieved." There is more difficulty in treating "head colds," because the swelling of the mucous membrane stops the air passages and prevents free access to the chlorine. Patients were at first treated in a special air-tight chamber, but afterwards a portable inhalation apparatus was devised which seemed to give equally good results. The experimenters have tabulated their cases and results as follows:

TOTAL CASES TREATED; NUMBER OF CURED, IMPROVED AND UNIMPROVED, WITH PERCENTAGE FOR EACH.

Diagnosis.	Number of Cases.	Cured.		Improved.		No Change.	
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Coryza	388	288	74.2	91	23.5	9	2.3
Acute laryngitis and pharyngitis	127	99	78.0	24	19.0	4	3.1
Acute bronchitis	241	192	80.0	47	19.5	2	0.5
Chronic rhinitis	106	33	31.1	41	38.6	32	30.2
Chronic bronchitis	47	34	72.3	12	25.5	1	2.1
Chronic laryngitis	2	2	100.0	.....	.....	.....	.....
Whooping cough	9	8	88.8	1	11.1	.....	.....
Influenza	11	9	81.8	2	18.1	.....	.....
	931	665	71.4	218	23.4	48	5.1

NUMBER OF PATIENTS TAKING ONE, TWO, THREE OR FOUR ONE-HOUR TREATMENTS.

	Cured.				Improved.				No Change.
	1.	2.	3.	4.	1.	2.	3.	4.	One Hour.
Coryza	271	16	1	....	91	....	....	....	9
Acute larygnitis and pharyngitis	93	6	....	....	23	....	....	....	4
Acute bronchitis	171	14	7	....	40	....	7	....	2
Chronic rhinitis	.....	1	4	28	30	4	....	6	32
Chronic bronchitis	6	23	5	....	9	....	3	....	1
Chronic larynigitis	....	1	1	....	.....	.....	.....	.....	.....
Whooping cough	.....	....	2	6	....	1	....	....	.....
Influenza	6	3	....	....	2	....	....	....	.....
	547	64	20	34	195	5	10	7	48

NEW DIGEST OF HEALTH LAWS.

The Boston Health Department has just issued a most valuable contribution to municipal literature in the form of a 344-page Digest of Health Laws, affecting the citizens of Boston. It comprises the statutes and special health legislation affecting the City of Boston, the ordinances of the City of Boston and the rules and regulations of the Health Department relative thereto. It is the first similar manual published in twenty years and the tenth since 1801. It is entirely new in its composition, in that the manner in which it is arranged does not follow or pattern previous publications. It is larger, more comprehensive, and contains all health legislation, reference notations and court decisions which are in effect at the present time in Boston and Massachusetts. To make this a complete and exact copy of the laws and regulations it was necessary to search every annual report since the Health Department was first organized, and go over carefully every record book containing the official minutes of meetings of the Board of Health and Health Department, as well as to examine the various sources of legislative authority for health administration since the organization. Nothing except the statutes in the General Laws, 1921, was taken for granted in previous volumes of similar compilations, and nothing, therefore, was handed down to be recopied. Every marginal notation has had careful verification, and every court decision indicated has been examined.

The volume contains a preface in which the Health Commissioner, Francis X. Mahoney, M. D., offers the reason for the publication, and the Secretary, Stephen L. Maloney, certifies to the authenticity and effect of the laws, ordinances and rules and regulations which it contains. Following the preface is a list of the earlier publications of health laws, and the like, since 1801, and a general table of contents. The volume is divided into five parts. Each part is a separate digest in itself, in that the laws and regulations, for instance, affecting food and food establishments, are in one part so that it is an easy matter for anyone to find, with the aid of the index to chapters at the beginning of each part, any of the laws or regulations for which he may be searching.

The work of collecting and compiling the data contained in this digest has covered several years, in a gradual manner, but outside of the printing and binding expense, finally, no specially appropriated funds have been expended on its compilation or editing. All of the work of the compilation was done in the office of the secretary and under his jurisdiction, and the completed volume is a credit to those who participated in its completion. Many attempts have been made in the past few years to have this work concluded,

but each succeeding year, until 1923, found it still unfinished. With the co-operation of his Honor Mayor James M. Curley of Boston, an appropriation was obtained in 1923 to have the compiled volume printed and properly bound.

It has been decided to limit the edition at this time, and to charge a nominal fee of $2 to help defray the cost of printing and binding. All requests, so long as the supply lasts, will be honored upon the payment of the prescribed fee, and an accounting of the money thus received will be made to the City Treasurer by the secretary.

The digest will be sold to other than officials of the governmental agencies, to whom free copies will be distributed, at this minimum cost of $2 each, so that the city will be reimbursed to a large extent for the actual printing.

The digest is of great value as a contribution to city documents; it is of extreme importance to the Health Department in its administration of public health activities, and it is certain that the time and effort spent in its completion was time and effort well and profitably spent.

The completion of this book in its present form represents much research, editing and real hard and tedious work. Credit for the compilation should be given to the secretary of the Health Department, Stephen L. Maloney, Inspector Denis D. Johnson and assistants in the secretary's office. Doctor Mahoney takes special pride in the work, but states that through the efforts of the Mayor the publication was made possible.

SLEEP.

To precede any comment upon sleep, or its benefits, or the necessity of it, it is wise to say immediately that the amount of sleep required varies with the individual. What is merely a doze to one person is sufficient to restore another individual to vigor and energy adequate for his pursuits in life. It follows, therefore, that any average requirement of sleep will apply to different individuals according to their personal needs, physically or mentally.

Sleep is, very briefly, complete relaxation. It is a state of repose or rest or freedom from agitation or activity which occurs periodically in man and animals. Its characteristic feature is complete or partial unconsciousness, a diminution of the vigorous flow of blood to the brain, the depth of the sleep being determined by degree of relaxation to which the nerve cells are induced.

The amount of sleep required varies, as stated. Generally, however, an adult needs from seven to eight hours of sleep.

Children and young folks require more. The adult cannot keep himself healthy unless he gets a sufficient amount of refreshing sleep, as sleep is the only complete rest for both body and mind. The individual who falls into a deep or dreamless sleep is best able to free himself of the waste products of the nervous system and to build up the nerve cells for the work of the day. The deepest, soundest sleep is usually in the early part of the night, and gradually toward morning, consciousness and alert wakefulness begin to return. Just between sleep and wakefulness is the "land of dreams." Dreams usually present a confused picture as the blood begins to course in increasing vigor to the brain cells, and with the complete restoration of blood circulation the dream ceases, because the dreamer wakes. Usually the dreaming sleeper does not get complete rest while he sleeps, as his rest is broken.

The physical effects of lack of sleep are not so great as the effects on the nervous system. Physical overwork, or mental activity of a constant nature or great degree, however, often makes it impossible for sleep to come easily. The tired muscles of the brain refuse to relax readily and as a result, when the bodily or mental fatigue is so acute that one feels sleep is the only antidote, sleeplessness seems to be imminent. On the other hand, a person occupying a sedentary position in life may go to sleep immediately following indulgence in some form of moderate physical exercise or exertion, because he has relaxed by doing something different. Mental tiredness often causes the same sleeplessness as physical tiredness, for the same reason, inability to completely relax.

There are other factors also which enter into the matter of sleep. A warm water bath just before retiring will invariably induce a sound, refreshing sleep, which is most beneficial to the nervous system. The chill is taken off the skin by the tepid water bath, and the body is placed in a condition suitable for normal slumber. Perhaps the habit of some individuals to wear some sort of foot protection or covering when sleeping is one of the reasons why they are able to sleep soundly, because it is possible for chilled or cold feet to be the cause for sleeplessness, or delay in getting to sleep. Sometimes the addition of extra bed covering will overcome the tendency to sleeplessness or tardy sleep. Contrarily, too, it is unwise to take a very hot water bath before retiring, because the nerves are overestimated to warmth and may delay refreshing sleep.

In the case of some individuals, the drinking of tea or coffee just before retiring will prevent sleep from overtaking them readily, because of the mental or nervous stimulus induced by the beverage. On the other hand, others are not affected by these things and will sleep regardless of their use just before going to sleep. Mental

stimulus or concentrated interest of any kind is just the proper thing to do to avoid sleep. There must be a complete relaxation, physically and mentally, to sleep well. The entire central nervous system must be rendered inactive, there should be no exterior distractions, such as noise or bright lights in the sleeping room, and the body should be comfortably disposed while sleeping. It is very noticable that when one is just normally tired, and retires for slumber, there is a very agreeable feeling of relaxation, and it is just this ability to relax, mentally and physically, which is the best sleep provoker when tired.

The normal individual should be able to go to sleep within a very short time after going to bed. The ability to go to sleep promptly is largely a matter of habit. If one is habitually accustomed to relaxing utterly when going to bed at night, that individual is more apt to enjoy a good, refreshing night's sleep and rest, and awake in the morning ready for business. Similarly, one who has made no effort to relax when going to bed is just as apt to do this night after night, and have no sufficient regular amount of rest or sleep. Those who find it difficult to go to sleep promptly should cultivate the habit of relaxation upon retiring for the night, to avoid the stimulations of the nervous or mental state, and to practice the physical relaxation of the body by just allowing themselves to lie upon the bed as though it really would support them instead of feeling that they must hang on to the bed as though it would suddenly lose its power of support.

It is well, too, to suggest that the sleeping hours be regulated so that one goes to sleep at a certain more or less fixed hour each night, and sleeps just enough, arising at about the same time each morning. If you sleep too much, you are apt to acquire a lack of what is commonly called nervous energy. Each individual can determine for himself just about how many hours of sleep are necessarily conducive to his greatest physical and mental efficiency. If you find that upon sleeping nine or ten hours, or more, you do not feel so full of energy, enthusiasm, vigor, or alertness, as when you have slept only seven to eight hours, it seems natural that the best amount of sleep for you is about seven or eight hours. Moreover, if you feel that seven or eight hours of sleep does not give you that feeling of rest and freedom from fatigue that you think you should have, by all means endeavor to get a little extra sleep. You need not necessarily take all your sleep and rest at one time. If you can sleep for an hour during the day, do so; then you will not require so much at night, and you will have given the physical and nervous system just that much added tonic of rest and relaxation which it needs. Cultivate the habit of a moment's freedom from a constant applica-

tion of energy during the day, now and then, and you will be surprised at the benefits. Do not overdo it, however; you might cultivate laziness.

Freedom from worry, anxiety or trouble, will also give you freedom to sleep. Ability to relax, physically and mentally, will enable you to sleep soundly and well. Proper sleeping room environment will give you a proper environment for relaxation so that the nervous system is reduced to that state of inactivity which enables you to sleep. If you sleep soundly, refreshingly, undisturbedly, you will feel the beneficial effects afterwards, in increased mental and physical vigor, cheerfulness and contentment, because you have stored up a reserve supply of nervous and physical energy without which man's usefulness is minimized.

BOSTON TO HAVE A SUMMER HEALTH CAMP.

The experiment of last year by the Boston Tuberculosis Association of utilizing the schoolroom at Prendergast Preventorium for a summer health camp, was so satisfactory that the association is planning to have a large summer camp this year for at least one hundred children. The circumstances last year were that with the closing of the school year the new addition to the preventorium, built for an open-air schoolhouse for the children, was lying idle, and the camp committee took occasion to furnish it and open it for a few weeks in the summer for a health camp, returning the children to their homes when the new school year was about to open. This afforded to a dozen little girls in addition to the twenty regularly cared for at Prendergast, an opportunity to stock up in health against the demands of a winter in congested homes in the city.

It is proposed to open the Prendergast summer health camp on June 1; tents will be secured for sleeping quarters and the children will be cared for for about eight weeks. Incidental to the increase in the number of children on the grounds, some important improvements are to be undertaken. City water will be brought in to replace the present well, which while serving quite easily the smaller group, would be overtaxed by the larger number, to care for which will require a somewhat extensive installation of showers and lavatory facilities, and it will be necessary to place a sanitary system for the disposal of the larger amount of sewage. Further than this it is proposed to lead gas pipes to the establishment for use in the kitchen, replacing the exisiting oil-burning equipment.

In order to avoid confusion at the last hour in the registration at the summer health camp, Dr. George S. Hill, chairman of the Prendergast Preventorium Committee, is suggesting to out-patient

PRENDERGAST'S SHELTERING ANGEL.

The Camp Matron, Miss Spaulding, has under her wings these twenty little girls, who are piling up health reserves at the Prendergast Preventorium.

departments, clinics and social centers, to be looking at once over their lists of possible candidates for the camp. The group to be considered first will include pretuberculous children with a case of active consumption in the family. They will be children who do not exhibit symptoms of the disease themselves, but who do respond to the von Pirquet test and whose families are not in financial condition to pay for institutional treatment. There will be included in this group any children who have been discharged from Prendergast, but for whom the follow-up work indicates substantial benefit to be gained by readmission to the preventorium. If there is space still available cases of *phlyctenular keratitis*, or tuberculosis of the eye, will next be considered, and in the event of space still available, under-nourished children who are not contacts may be admitted.

Any information necessary will be furnished by the association from its headquarters, No. 25 Huntington avenue, telephone Back Bay 10505, or by members of the Prendergast Preventorium Committee. This committee will be glad to receive any assistance, financial or in the way of volunteer work, towards meeting the unusual demands that the summer health camp entails.

This bit of additional effort on the part of the Boston Tuberculosis Association will not interfere with the conduct as usual of the Preventorium with its twenty-two resident little girls, or with the development of permanent constructions for the proposed wing for boys, which will be pushed forward as soon as costs of building make it practicable to proceed.

The slogan of Prendergast is "Economy, Efficiency, Expansion."

AMENDMENT TO THE REGULATIONS FOR THE SALE AND CARE OF MILK AND MILK PRODUCTS.

Adopted April 15, 1915, under the Provisions of Revised Laws, Chapter 75, Section 65 (now General Laws, Chapter 111, Section 122).

Ordered, That the regulations for the sale and care of milk and milk products, adopted April 15, 1915, by the Health Commissioner under the provisions of Revised Laws, chapter 75, section 65 (now General Laws, chapter 111, section 122), be and the same are hereby amended by adding at the end thereof the following new article, to be entitled "Article XII, Tuberculin Tested and Accredited Herds; Pasteurization."

ARTICLE XII.— TUBERCULIN TESTED AND ACCREDITED HERDS; PASTEURIZATION.

SECTION 1. On and after May 31, 1924, all raw milk, whether certified or not, offered for sale in the City of Boston, shall be drawn

exclusively from tuberculin tested and accredited herds, or tested herds on the way to accreditation, under Federal supervision, and shall, when offered for sale, contain not more than 100,000 bacteria per cubic centimeter. A license to sell such milk shall be procured from the Health Commissioner and at the time of the application for a license to sell such milk the dealer shall make known to the Health Commissioner the results of all tests during the previous year upon animals owned by him or under his control.

SECT. 2. On and after May 31, 1924, all milk not meeting the requirements as contained within section 1, before being offered for sale, shall be pasteurized and shall comply with the following requirements: Shall be natural cow's milk not more than seventy-two hours old when pasteurized, shall be subject for a period of not less than thirty minutes to a temperature of not less than 140 degrees Fahrenheit and not more than 145 degrees Fahrenheit; and shall be immediately cooled to a temperature of 50 degrees Fahrenheit or lower.

SECT. 3. The heaters or pasteurizers used in the pasteurization of milk shall be equipped with suitable automatic time and temperature recording devices indicating to what temperature the milk has been heated, the length of time it was subject to such heat, as well as the time when such record was made. The record so made shall be presserved for one year by every milk dealer and shall be open to the inspection of the Health Commissioner of his authorized agent whenever requested.

SECT. 4. No pasteurizing equipment shall be used for the pasteurization of milk that is not approved by the Health Commissioner or his authorized agent.

SECT. 5. All cream and skimmed milk offered for sale not obtained from milk meeting the requirements of section 1, shall be pasteurized in accordance with the provisions of section 2, or obtained from pasteurized milk.

SECT. 6. All ice cream offered for sale shall be manufactured from cream obtained from milk meeting the requirements of section 1 or from milk meeting the requirements of section 1, or from pasteurized milk.

SECT. 7. No milk offered for sale shall be pasteurized more than once.

SECT. 8. Pasteurized milk when offered for sale shall contain not more than 100,000 bacteria per cubic centimeter.

March 7, 1924.

F. X. MAHONEY, M. D.,
Health Commissioner.

Attest:

S. L. MALONEY, *Secretary.*

HOSPITALS, SANATORIA AND DISPENSARIES FOR TUBERCULOSIS IN THE CITY OF BOSTON AND VICINITY.*

By Stephen L. Maloney, Secretary Boston Health Department.

The purpose of the present bulletin is to furnish to the physicians of Boston a list of the institutions that will care for tuberculosis within the city, in the municipalities adjoining Boston, and some others in the state, which depend upon Boston for a large share of their patients. Some notes are appended to the list, giving further information.

Of course, it is well known by all physicians that pulmonary tuberculosis, as well as all other forms, is reportable to the Health Department. With the immediate reporting of this disease and the facilities which are at our disposal, much has been accomplished toward reducing the morbidity and mortality from tuberculosis.

There are three municipal hospitals in the district, Boston Sanatorium (formerly Boston Consumptives' Hospital), Brookline Tuberculosis Hospital and the Cambridge Tuberculosis Hospital.

Boston Sanatorium, 249 River street, Mattapan, accepts as patients both adults and children. The only requisite for admission is residence in the City of Boston.

There are 422 beds. Patients who are able to pay are charged at the rate of $12.25 per week. All others are admitted free. Patients with pulmonary disease are admitted in all stages. Nonpulmonary cases are also admitted. Certain types only, however, of the nonpulmonary cases are admitted at present to the hospital. Application for admission may be made to the superintendent of the hospital at Mattapan or to the superintendent of nurses at the Out-Patient Department.

The Brookline Hospital will take incipient as well as advanced cases, and accepts children temporarily. It is free to Brookline settlements, with a charge of $20 to others. It has a capacity of fifteen beds and a follow-up system for visiting discharged cases.

The Cambridge Hospital will take incipient as well as advanced cases, including children. The rate is $2 a day, nonresidents being required to pay two weeks in advance. It has a capacity of sixty beds.

The private institutions in this group are the following:

---

* Boston Tuberculosis Association Bulletin No. IV.

Channing Home, 198 Pilgrim road, accepts women only, including girls of more than four years of age, in the incipient or moderately advanced stages. The charge is $5 for adults, and $4 for children up to ten years. The capacity is twenty-two beds. There is no follow-up system.

Holy Ghost Hospital, Cambridge, accepts patients in all stages of the disease, with a charge of $12 or $20.

Sharon Sanatorium, Sharon, accepts women in the incipient stage, and boys and girls in the incipient or pretuberculous stage. Its rates are $20 for women and $15 for children. It has a capacity for about one hundred patients.

Prendergast Preventorium, Harvard street, Mattapan, supported by the Boston Tuberculosis Association, accepts girls of from five to twelve years of age, who have been exposed to tuberculosis and who are underweight, but who do not show any symptoms of active tuberculous disease. Its capacity is twenty. It cares for children sent to it by the out patient departments of Boston hospitals, and retains them until discharged by the camp physician, usually about four or six months. There is no charge to the families. The association is planning to provide temporary quarters during the summer months for 100 children and later hopes to build a wing for boys, for whom no accommodations exist in Boston today.

Children's Mission, Boston, places crippled children in excellent boarding houses under medical supervision. The hours are from 9 a. m. to 5 p. m. It has a follow-up system.

New England Peabody Home for Crippled Children, Jamaica Plain, cares for cases in this group and the parents are asked to pay according to their means. It has eighty-eight beds and no follow-up system.

The Massachusetts Hospital School for Crippled Children at Canton, which is free, receives many of its patients from Boston. It has a capacity of 400 beds.

The Industrial School for Crippled and Deformed Children on St. Botolph street maintains a day school. It has a day school capacity for 120 children and also a follow-up system.

There are six dispensaries in Boston, at which examinations may be made:

Boston Sanatorium, Out-Patient Department, rear of 48 Rutland street (temporarily) is open on Mondays, Wednesdays, Fridays and Saturdays, from 9 to 11 a. m. for adults and children. On Saturdays there is a special clinic for children. It is open on Monday evenings from 7 to 9 p. m. The Out-Patient Department nurse visits all cases at their homes and the patients and their families are followed up indefinitely.

Boston Dispensary, Bennet street, lung clinic, Thursday, Friday and Saturday, from 9 to 10.30 a. m. It has a follow-up system.

Children's Hospital, 300 Longwood avenue, Out-Patient Department medical clinic, tuberculosis branch, Monday, from 9 to 10 a. m. Has follow-up system.

Massachusetts General Hospital, Fruit street, Out-Patient Department clinic for treatment of nonpulmonary tuberculosis, Wednesday, from 8.30 to 10 a. m. Has follow-up system.

Massachusetts Homeopathic Hospital, Out-Patient Department, 750 Harrison avenue, chest clinic, Tuesday and Friday, 8.30 to 11 a. m. Has follow-up system.

Peter Bent Brigham Hospital, Out-Patient Department, 721 Huntington avenue, clinic for pulmonary diseases, Saturday, from 10.30 a. m. to 12 m. Has follow-up system.

The following institutions for the treatment and care of tuberculosis are maintained by the state:

Rutland State Sanatorium, Lakeville State Sanatorium, North Reading State Sanatorium and Westfield State Sanatorium. Application for admission for any of the above sanatoria may be made by the attending physician directly through the Division of Tuberculosis of the State Department of Health, State House, Boston, Haymarket 4600, or through the Boston Sanatorium, Out-Patient Department.

The Boston Tuberculosis Association, at 25 Huntington avenue, maintains an information service for physicians and laymen. It has also a lecture bureau, which will furnish speakers without cost to societies, clubs, and other groups, on the prevention and care of tuberculosis. For the information of physicians and nurses, it holds institutes every year with most recent information concerning prevention, treatment, diagnosis and technique. The association has a placement bureau, which seeks to find suitable employment for consumptives discharged from sanatoria. Its follow-up work is directed especially to those discharged from the Prendergast Camp.

The following amendment to the New York State Sanitary Code was adopted by the Public Health Council at a meeting held at the office of the State Department of Health, New York City, March 11, 1924.

"No ice cream shall be sold or offered for sale unless the milk and cream used in the manufacture thereof, other than Grade A, shall have been pasteurized."

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during April. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria. per Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	11.60	3.03	25
Anderson, Oscar A	12.45	3.75	16
Antetomasso, Peter	11.96	3.35	8
Barden, R., Creamery Company	13.49	4.30	458
Barron, Clarence W	13.86	4.80	16
Barry, Michael F	12.19	3.57	20
Bemis, Henry E	12.30	3.60	88
Bergmann, John H	12.57	3.85	13
Bolio, Mary J	12.62	4.00	28
Bowditch, E. F., Estate	12.25	3.72	19
Brandley, P. J. & T. J	12.75	4.05	16
Burns, James	12.13	3.70	92
Casey, James D	12.75	3.90	40
Cashin, James F	12.22	3.70	24
Cedar Hill Farms, Inc	13.49	4.52	10
Chapin, George L	12.20	3.60	6
Childs Brothers	12.14	3.52	409
Clapp, Frank L	12.80	3.80	84
Clark, Levi	11.88	3.45	30
Cohen, Benjamin	12.16	3.55	128
Corkery, John H	12.12	3.50	188
Creedon & Crowell	12.23	3.77	56
Cummings, F. S., Company	12.08	3.63	13
Cunningham, Paul	14.10	4.75	6
Cusick, William H	12.15	3.67	453
Deerfoot Farms Milk Company	12.60	3.88	83
Denehy, Timothy	12.59	3.85	40
Driscoll, William B	12.64	3.85	14
Duggan Brothers	12.30	3.82	9
Edgerly, Frank S	12.14	3.60	26
Elm Spring Farm Company	12.03	3.52	66
English, John	12.54	3.80	86
Ferguson, Malcolm D	12.24	3.52	603
Floyd Milk Company	12.34	3.75	75

Name of Dealer.	Solids.	Fat.	Bacteria. per Cubic Centimeter.
	Per Cent.	Per Cent.	
Fortune & Allen	12.33	3.80	13
Furbush, Almon J	11.56	3.30	220
Garvin, Charles E	13.30	4.60	813
Giroux, J. E., & Co	12.10	3.65	220
Griffin, Joseph L	12.39	3.78	33
Griffin Brothers	12.36	3.76	15
Gushee, W. S. & C. W	12.28	3.63	19
Hagar, J. M., & Sons	12.34	3.65	38
Hancock, T. G., & Co	12.37	3.85	23
Herlihy Brothers	12.31	3.72	120
Hickey, Martin J	12.33	3.80	72
Holden, John E	12.40	3.76	14
Holland & Co	12.40	3.75	16
Hood, H. P., & Sons, Inc	12.12	3.66	102
Jones, William T., & Co., Inc	12.49	3.70	16
Kendall Brothers	12.25	3.60	79
Kennedy Robert J., Jr	12.31	3.80	40
Kingston, Samuel	12.16	3.50	6
Klawa & Co	12.42	3.75	25
Knapp, George J	12.24	3.70	65
Lang, Michael J	12.28	3.65	22
Larkin, Patrick	13.30	4.30	418
Larsson, Charles	12.10	3.50	21
Lincoln Farms, Inc	12.38	3.72	29
Lyndonville Creamery Company	12.40	3.52	425
Magee, Nellie A	12.80	3.70	186
Manning, Peter E	12.40	3.90	160
Maple Farm Milk Company	12.36	3.72	153
McAdams, John F	12.15	3.60	75
McGilvray, Charles D	12.44	3.70	600
McKernan, John	12 11	3.45	11
Moore, Peter	12.17	3.57	45
Morgan, George D	13.50	5.35	28
Munchbach, George	12.25	3.60	27
Newton & Pope	12.50	3.80	16
Noble, William F., & Sons	12.37	3.65	8
Rautenberg, Otto G	11.54	3.01	9
Raycraft, Benjamin F	12.77	4.15	8
Robinson, Albert J	12.28	3.67	55
Robinson, James A	12.23	3.62	456
Runkle, John C	12.48	3.80	60

Name of Dealer.	Solids. Per Cent.	Fat. Per Cent.	Bacteria per Cubic Centimeter.
Schuste, Adam	12.33	3.70	40
Seven Oaks Dairy Company	12.36	3.67	34
Shick, Jacob	12.35	3.75	453
Smith, Charles W	12.18	3.65	12
Smith & Lynch	12.12	3.60	24
Somerset Farms Milk Company	13.40	4.50	10
Sterling Farms Milk Company	12.29	3.65	22
Stone, H. L	12.16	3.60	16
Stuart, Wallis E	12.62	3.76	14
Sullivan, John D	13.06	4.10	16
Sullivan, John L	12.68	3.85	20
Turner Centre System, Inc	12.54	3.80	15
Upland Farms Milk Company	13.41	4.22	10
Vartanian, Gazar	12.04	3.65	82
Vartanian, Setrag	12.06	3.65	17
Walker-Gordon Laboratory Company	12.62	4.05	10
Ware, George H	12.22	3.72	22
Weiler, E., & Sons	12.00	3.76	48
Werner, Ferdinand	12.29	3.70	49
Westwood Farm Milk Company	12.24	3.55	23
White Brothers	12.13	3.62	38
Whiting Milk Companies	12.11	3.60	46
Whittemore, Warner D	12.25	3.80	15
Wiswall, Granville A	12.86	3.85	50
Wittenberg & Co	12.46	3.80	310
Woodland, Charles	12.12	3.50	24

CHAIN STORES MILK.

Name of Dealer.	Supplied By.	Solids. Per Cent.	Fat. Per Cent.	Bacteria per Cubic Centimeter.
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.03	3.56	370
The Cloverdale Company	Turner Centre System, Inc.,	12.45	3.75	50
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.56	4.02	13
Co-operative Grocery Company,	J. M. Hagar & Sons	12.12	3.60	82
Economy Grocery Company	Turner Centre System, Inc.,	12.28	3.65	44
First National Stores	Whiting Milk Companies	11.86	3.42	257
Morgan Brothers Company	Whiting Milk Companies	12.00	3.64	27
M. O'Keeffe, Inc	J. M. Hagar & Sons	12.26	3.65	86
Rose Tea Company	H. P. Hood & Sons, Inc., and Whiting Milk Companies.	12.02	3.60	26
M. Winer & Co	Hyman Winer	12.44	3.65	68

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH DURING APRIL, 1924.

Classification.	Number.	Percentage.
	April.	April.
After death	10	16.95
Seven days or less	2	3.40
Eight to fourteen days, inclusive	1	1.69
Fifteen to twenty-one days, inclusive	1	1.69
Twenty-two to thirty-one days, inclusive	3	5.08
Within First Month	17	28.81
Within second month	5	8.48
Within third month	1	1.69
Within fourth month	—	—
Within fifth month	5	8.48
Within sixth month	2	3.40
Within seventh month	3	5.08
Within eighth month	2	3.40
Within ninth month	2	3.40
Within tenth month	1	1.69
Within eleventh month	—	—
Within twelfth month	1	1.69
Within First Year Preceding Death	39	66.12
Within second year	3	5.08
Within third year	1	1.69
More than three years	16	27.11
Totals	59	100.00

SUMMARY OF THE WORK, APRIL 1, 1924.

BUREAU OF ADMINISTRATION.

	April.	Mar.
Hearings authorized	1	2
Prosecutions ordered	13	4
Dump applications approved	5	7
Dump applications disapproved	2	1
Offensive trades approved	1	0
Legal notices	399	244
Vacate notices	0	1
Day nursery approved	0	1
Forcible removals	8	0
Lodging houses certified,	7	0

	April.	Mar.
Personnel:		
Transfers	1	3
Promotions	10	1
Provisional	1	1
Provisional appointment extended	0	1
Permanent	1	4
Resignations	0	2
Retirements	2	1
Regulations	0	1
Lying-In hospitals certified	3	0

LICENSES, PERMITS, ETC., ISSUED.

	April.	Mar.
Burial permits	1,180	1,157
Milk licenses	1,264	1,370
Beverage licenses granted,	2	4
Pedlers' licenses granted,	137	80
Hen licenses granted	606	792
Stable permit finally granted	2	2
Provisionally	0	1
Stable rights revoked	0	1
Stable rights refused	1	0
Rooster permits	0	2
Undertaker's license granted	1	2
Undertaking establishments authorized	1	0
Denatured alcohol licenses	6	3
Manicure-massage:		
Granted	42	40
Dumps	6	11

MEDICAL DIVISION.

HEALTH UNIT (Blossom Street).

	April.
HEALTH DEPARTMENT PROPER:	
Vaccinations	18
Vaccination certificates	7
Antitoxin, antityphoid, Schick toxin-antitoxin given	18
Children examined for camps and day nurseries	7
Visits by medical inspectors	96
Dental Service:	
Number of operations	1,003
Number of dismissals	180
Number of children treated,	520
Nutrition Service:	
Number of conferences	5
Conference attendance	5
Number of home visits	27
Nose and Throat Service:	
Number of conferences	2
Number of examinations	92
Adenoids and tonsils, operations recommended	39
Nurses' Visits:	
Communicable diseases	191
Babies	600
Children of pre-school age,	173
Children of school age examined	440
Cooking Classes:	
Number	1
Attendance	3
Health and Posture Classes:	
Number	3
Attendance	50
Miscellaneous:	
Complaints of insanitary conditions	15
Information requests	350
Resident visitors	10
Non-resident visitors	15

	April.
COMMUNITY HEALTH ASSOCIATION.	
General:	
Home visits by nurses	1,569
Posture classes	7
Posture class attendance	66
Child Hygiene Division:	
Number of conferences	14
Conference attendance	457
New babies admitted	55
Home visits to babies	996
Home visits to children	121
BOSTON DISPENSARY:	
Calls by district physician	60
BOSTON SANATORIUM:	
Calls by nurses in district	992
JEWISH WELFARE CENTER:	
Nutrition conferences:	
Number	5
Attendance	77
Nutrition Classes:	
Number	5
Attendance	106
AMERICAN RED CROSS:	
Home Nursing Classes:	
Number	3
Attendance	33
STATE DEPARTMENT OF MENTAL DISEASES:	
Habit forming clinics	3
Attendance	12
Home visits	13

BUREAU OF COMMUNICABLE DISEASES.

	April.	Mar.
Visits:		
By medical inspectors,	1,413	1,561
By veterinarian	175	206
By investigator	280	293
By nurses	4,368	4,898
Cases brought to Boston for treatment	88	94
Deaths investigated	25	13
Nurses' Schick activities,	14,871	25,798

	April.	Mar.
Medical inspector's activities:		
Schick tests	6,183	11,553
Schick readings	5,683	9,434
Toxin-antitoxin injections	3,005	4,811
Vaccinations	28	15
Antitoxin injections	0	6

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, APRIL 1, 1924.

SYPHILIS.

Current cases under investigation April 1, 1924	25
New cases assigned during the month	19
Total	44

Disposition of Cases.

Located:	
Placed under treatment	8
Not located:	
Search abandoned	8
Under investigation April 30, 1924	28
Total	44

GONORRHEA.

Current cases under investigation April 1, 1924	45
New cases assigned during the month	67
Total	112

Disposition of Cases.

Located:	
Under treatment	2
Placed under treatment	26
Further treatment unnecessary	2
Not located:	
Search abandoned	32
Fraudulent use of name	1
Under investigation April 30, 1924	49
Total	112

SUMMARY.

Current cases under investigation April 1, 1924	70
New cases assigned during the month	86
Total	156

Disposition of Cases.

Located:	
Under treatment	2
Placed under treatment	34
Further treatment unnecessary	2

Not located:	
Search abandoned	40
Fraudulent use of name	1
Under investigation April 30, 1924	77
Total	156
Form letters mailed to above patients	82
Form letters unclaimed returned from post office	29
Form letters accepted by patients	53
Venereal disease complaints	19
New cases	9
Under investigation April 1, 1924	10
Disposition of complaints:	
Placed under treatment	6
Unable to locate	4
No evidence of disease	1
Under investigation April 30, 1924	8
Visits by investigators	329

CHILD HYGIENE DIVISION.

	April.	Mar.
Total number of all visits	*4,106*	*4,153*
Visits to new cases	869	1,039
Visits to old cases	2,819	2,732
Ophthalmia cases:		
Visits by Child Hygiene Division	166	168
Visits by Health Unit	*23	*56
Infant mortality investigations	137	130
Maternal death investigations	115	57
Special visits	0	27

* Not included in total number of all visits.

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	April.	Mar
New reports	4,248	4,622
Stores inspected	4,895	4,964
Sanitary defects remedied	98	60
Complaints at office	52	28
Referred to Sanitary Division	13	13
Milk applications	126	76
Peddlers:		
Applications for licenses approved	186	81
Vehicles inspected and approved	569	542
Court cases	7	6
Convictions	4	3
Fines	$120	$150
Laboratory Examinations:		
Bacteriological	3	3
Chemical	2	8

CONDEMNATIONS.

Not Requested.	April.		April.
Beef	6 pounds	Corned shoulder	43¼ pounds
Chicken	7 pounds	Corned beef	15 pounds
		Figs	175 pounds

	April.
Fowl	10 pounds
Garlic	5 bags
Geese	85 pounds
Hamburg steak	7 pounds
Lamb	93 pounds
Oranges	22 dozen
Salmon	1,216 pounds
Spare ribs	50 pounds
Veal	20 pounds
Turkey	14 pounds

	April.
Walnuts	65 pounds
REQUESTED.	
Molasses	42 cans
Peaches	3 cans
Pineapples	5 cans
Prunes	27 cans
Sardines	121 cans
Shrimp	6 cans
Strawberries	14 cans

LIVE STOCK INSPECTION (Brighton Abattoir).

	April.	Mar.
Cattle inspected	88	61
Calves inspected	4,688	5,565
Swine inspected	4,499	5,102

	April.	Mar.
Sheep inspected	6	0
Parts condemned	213	243
Animals condemned	21	1

DAIRY DIVISION.

	April.	Mar.
Total inspections	2,486	2,162
Dairies inspected	312	264
Scoring above 50 *	219	170
Scoring below	93	94
With milk rooms	210	156
Without milk rooms	102	108
Inactive	5	14
Total cattle inspected	4,865	3,662

	April.	Mar.
Inspection of milk plants and licensed dealers	273	297
Bacteriological examinations	1,847	1,545
High bacterial counts investigated	20	26
Country creamery inspections	29	16

* Passable mark.

BUREAU OF MILK INSPECTION.

	April.	Mar.
Chemical inspection of:		
Milk	1,312	1,534
Vinegar	65	68
Butter	1	2
Miscellaneous	9	9

	April.	Mar.
Bacteriological examination of:		
Milk	730	788
Ice cream	111	72
Court cases	19	19
Fines	$175	$210

SANITARY INSPECTION.

	April.	Mar.
Original inspections	2,251	3,148
New reports	2,994	2,764
Reinspections	7,234	5,761
Legal notices served	218	198

	April.	Mar.
Complaints	736	608
Vacate notices	0	1
Court cases	7	3
Fines	$132	$0

BACTERIOLOGICAL LABORATORY.

	April.	Mar.
Diphtheria	1,839	2,036
Tuberculosis	290	312
Typhoid	43	42
Gonorrhea	772	730
Gonorrheal ophthalmia	48	67
Syphillis	1,540	1,379
Other examinations	23	24
Bacteriological examinations of milk	730	
Bacteriological examinations of ice cream	111	

* Dog for rabies, 1; dark field examinations, 1; malaria, 5; paratyphoid, 4; genito-urinary tuberculosis, 6; spinal fluid for organisms, 1; cultures for virulence, 5.

VITAL STATISTICS, APRIL, 1924.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING APRIL, 1924, WITH COMPARATIVE FIGURES FOR APRIL, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
ALL CAUSES:						
Total deaths	1,054	1,047	+7	16.28	16.31	—.03
Nonresidents deducted	876	862	+14	13.53	13.43	+.10
BY AGE:						
Under one year	128	160	—32	1.98	2.49	—.51
One year to four years, inclusive	65	76	—11	1.00	1.18	—.18
Sixty years and over	384	367	+17	5.93	5.72	+.21
BY SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy	83	75	+8	1.28	1.17	+.11
Arteriosclerosis	41	27	+14	.63	.42	+.21
Heart disease	151	144	+7	2.33	2.24	+.09
Nephritis, chronic	44	65	—21	.68	1.01	—.33
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births	1,605	1,611	—6	24.79	25.09	—.30
b. Registered stillbirths	50	48	+2	.77	.75	+.02
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	30.21	28.93	+1.28
c. Deaths of mothers from causes incident to childbirth	11	17	—6	.17	.26	—.09
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	6.65	10.25	—3.60
Deaths of children in first year of life	128	160	—32	1.98	2.49	—.51
Deaths in first year per 1,000 live births,	.....	.....	.....	79.75	99.32	—19.57
VIOLENCE:						
Accidents	51	60	—9	.79	.93	—.14
Homicides	2	1	+1	.03	.015	+.015
Suicides	6	9	—3	.09	.14	—.05
MISCELLANEOUS:						
Alcoholism, acute or chronic	16	12	+4	.25	.19	+.06
Broncho-pneumonia	65	56	+9	1.00	.87	+.13
Cancer	101	70	+31	1.56	1.09	+.47
Cirrhosis of the liver	5	4	+1	.08	.06	+.02
Diabetes mellitus	17	26	—9	.26	.40	—.14
Diarrheal diseases, children under two years of age	4	18	—14	.06	.28	—.22

		CASES AND DEATHS.					
		Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
		1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:							
Anterior poliomyelitis	Cases	2	2	—	.03	.03	—
	Deaths	—	—	—	—	—	—
Cerebrospinal meningitis	Cases	1	3	—2	.015	.05	—.03
	Deaths	—	3	—3	—	.05	—.05
Diphtheria	Cases	270	265	+5	4.17	4.13	+.04
	Deaths	23	7	+16	.35	.11	+.24
Influenza	Cases	14	11	+3	.22	.17	+.05
	Deaths	—	6	—6	—	.09	—.09
Measles	Cases	753	914	—161	11.63	14.23	—2.60
	Deaths	3	5	—2	.05	.08	—.03
Pneumonia (lobar)	Cases	209	117	+92	3.23	1.82	+1.41
	Deaths	67	51	+6	1.03	.95	+.08
Scarlet fever	Cases	394	346	+48	6.09	5.39	+.70
	Deaths	8	12	—4	.12	.19	—.07
Tuberculosis (pulmonary)	Cases	169	145	+24	2.61	2.26	+.35
	Deaths	64	74	—10	.99	1.15	—.16
Tuberculosis (other forms)	Cases	45	38	+7	.69	.59	+.10
	Deaths	8	10	—2	.12	.15	—.03
Typhoid fever	Cases	5	7	—2	.08	.11	—.03
	Deaths	3	3	—	.05	.05	—
Whooping cough	Cases	37	344	307	.57	5.36	—4.79
	Deaths	—	13	—13	—	.20	—.20

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1,..... (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

3761.10

Rec'd JUL 8 1924 B. P. L.

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, JUNE, 1924. No. 6

TYPHOID FEVER.

This is the season of the year when everyone should be thinking about protection against possible infection with typhoid fever. Twenty-five years ago as many people died in this state every year from typhoid fever as are now being killed annually by automobiles. The death rate from typhoid fever has in the meantime become almost insignificant in Massachusetts. This is, of course, not the whole story. Typhoid fever still exists among us. It is spread by "carriers" and in other ways. It still causes every year a considerable amount of suffering, incapacity and economic loss. A dozen or two deaths are reported from typhoid fever in Boston every year out of an average of about one hundred twenty-five cases annually. Some of these cases are attributable to persons who have had typhoid fever in years past and who still continue to be carriers of organisms of the disease and who infect, either by food contamination, or in some other way, persons with whom they come in contact. A certain number of cases of typhoid fever occur annually in Boston which appear to be attributable to shell fish taken from flats contaminated by sewage, but by far the greatest number of cases reported in Boston occur in persons who have become infected

with typhoid fever while spending vacations outside of the city and the state. It is for this reason that everyone who is contemplating a summer vacation outside the city should consider the matter of protection against typhoid fever.

Typhoid fever was a most important cause of mortality and disability in both armies during the Civil War, and typhoid fever has not been a disease which has shown any tendency to a spontaneous decrease in virulence in this country. It was relatively even a greater source of mortality and disability in the Spanish War than in the Civil War. When our peace with Spain was concluded it is scarcely an exaggeration to say that our entire army was *hors de combat* by reason of typhoid fever, in spite of the fact that the means by which typhoid fever may be spread was practically as well understood then as today. Typhoid fever was an equally serious scourge in the armies of both combatants during the Boer War which followed so soon after our Spanish War.

It was largely through the experimental work carried on in the armies during the Boer War that final success in protective vaccination against typhoid fever was brought about. For the first time in military history typhoid fever was a negligible factor in military operations during the World War, so far as the allied armies were concerned. Such immunity against typhoid fever was the result of protective vaccination of every soldier against typhoid fever and also at the same time against its close relative, paratyphoid fever.

Protection against both of these diseases is secured by injecting subcutaneously organisms of these diseases which have been cultivated artificially in the laboratory and then killed with heat and mixed with some preservative, like creosol, for example. No live organism or active virus is therefore injected into the individual. A product contained in the dead organisms of these two diseases is alone sufficient to cause the human body to build up within a few weeks an immunity to infection from live organisms of these diseases. Since experience has shown the number of these organisms required to produce such an immunity, and with improvement in methods of preparation of these dead organisms for purposes of injection, sickness or serious local reactions from the injections are no longer known. It is seldom today that antityphoid vaccination will require any interruption from a person's daily work. It is customary now to make three injections during the course of ten days or two weeks. The number of dead organisms is increased with each dose, but the largest amount of fluid injected at any time is only about fifteen drops.

The Boston Health Department distributes to physicians, through its drug store culture stations, antityphoid vaccine put up

ready for use, and one who is going off for a summer vacation or arranging for his family to go away may save himself life-long regret by taking the trouble to have his physician vaccinate him and his family against typhoid fever before they start.

The following instructions regarding vaccination against typhoid and paratyphoid fever have been issued to medical officers of the United States Army:

Typhoid-Paratyphoid Immunization.— A vaccination with typhoid-paratyphoid vaccine consists of three inoculations of vaccine administered at intervals of not less than five and not more than fourteen days between consecutive doses; ordinarily the doses are spaced at intervals ranging from seven to ten days. The dosage for adults should be 0.5 cubic centimeter for the first dose and 1 cubic centimeter each for the second and third doses.

The most suitable time for administering vaccine is in the afternoon. The site of election for inoculation is the left arm, at the level of the deltoid insertion. The vaccine should be administered subcutaneously and special care taken that it is not injected into a muscle, into a vein, or into the skin.

The site of inoculation should be disinfected by painting with tincture of iodine and care taken that the coating of iodine has thoroughly dried before the needle is inserted. The hypodermic syringe and needles should be sterilized by heat before use. A freshly sterilized needle is employed for each individual vaccinated. At time of vaccination each container in which the vaccine is distributed, whether ampule or bottle, should be examined carefully for cracks and other defects. Faulty containers and their contents should be discarded.

The ampule or bottle containing the vaccine should be thoroughly shaken to assure uniform distribution of the organisms and wiped off with or immersed in a disinfectant (preferably acetone or alcohol). The ampule is then opened in such manner as to avoid contamination of its contents and the vaccine withdrawn directly from the ampule. Any excess vaccine remaining in opened ampules should be discarded.

If the vaccine for use is supplied in bottles, the rubber stopper of the bottle should be sterilized by painting with tincture of iodine and the contents withdrawn by puncturing the rubber stopper with a sterile hypodermic needle.

The skin at the site of the needle puncture should be painted with tincture of iodine following the administration of vaccine.

Following the administration of typhoid-paratyphoid vaccine, slight systemic and local reactions ordinarily occur within twenty-four hours. The usual reaction includes headache and malaise, with

local redness and tenderness surrounding the point of the inoculation. Occasionally the systemic reaction is more severe, consisting of a rise in temperature, headache, backache, nausea, vomiting, labial herpes, with very rarely albuminaria and some loss in body weight. Severe reactions are exceedingly unusual and generally disappear within forty-eight hours. Vaccinated individuals should avoid strenuous exercise or work for twenty-four hours after the administration of the vaccine.

MEASLES.

Measles still continues to be an important cause of death among young children. Reported deaths from measles in the City of Boston number about the same as reported deaths from scarlet fever today. The majority of reported deaths from measles are in children under two years of age. Measles is a serious disease in any child who is run down or weakened from any cause. Especially for the protection of children already in ill health, and who have been exposed to measles, it is well that practising physicians should not forget that they have it within their power today to render an attack of measles practically innocuous to a child in any condition, even if the child cannot be completely immunized and prevented from contracting the disease.

The status of our present ability to protect against measles was set forth in an article read by Abraham Zingher, M. D., Dr. P. H., before the section on pediatrics of the New York Academy of Medicine, January 10, 1924, and published in the "Journal of the American Medical Association," April 12, 1924. In this article Doctor Zingher reviews the practical experience of others as well as an extensive practical experience of his own, with methods of immunizing against measles. Certain of his conclusions are as follows:

Convalescent measles serum, plasma or whole blood has definite value in the prophylaxis of measles.

It can be used to produce complete passive immunity if injected within the first four or five days after exposure, and a mixed form of immunity if injected in larger doses after the fifth day.

It can be injected in small doses after the fifth day of exposure, to modify the character of the disease rather than to prevent its development. If such an attack develops, the immunity will probably be permanent.

The blood plasma or serum of recovered cases, such as that from brothers and sisters, and also of adults who have had measles in childhood, can replace convalescent serum if used in larger amounts.

With the increasing number of days of exposure, larger doses of convalescent serum have to be used when it is desired to produce complete protection. The dose of serum during the first four days of exposure is 2.5 cubic centimeters; during the fifth and sixth days, 5 cubic centimeters, and during the seventh and eighth days, 7.5 cubic centimeters. To influence the type of measles so that a modified attack of the disease will develop, the dose is from 2.5 to 3 cubic centimeters, injected from the fifth to the tenth day after exposure. These doses are calculated for children three years of age; they should be proportionally higher for older children and for adults.

A quick, simple and convenient method, which can be used with ease both in hospital and in private practice when prepared convalescent serum or plasma is not available, is to inject intramuscularly whole blood, citrated or not citrated, in double the amounts recommended for serum.

Complete passive protection with convalescent serum or plasma has its field of usefulness in protecting the very young and feeble children and those suffering from rickets, tuberculosis, diphtheria, and whooping cough. Also during the cold seasons of the year, when catarrhal conditions prevail and there is danger of pulmonary complications, such complete immunization is often indicated.

In private practice, however, in dealing with normal healthy children who have been exposed to measles, as well as in some institutions taking care of healthy robust children, it will be generally more desirable to use convalescent serum, the serum of recovered cases or adult serum, so as to obtain a modified and mild form of the disease. A fairly permanent immunity will thus be established, rather than a temporary protection for a short period of time.

In certain institutions, foundling asylums and hospitals the indications are to stamp out the outbreak of measles by completely protecting the exposed and nonimmune children with convalescent serum. Outbreaks of measles cause a high mortality among these children and cripple the institutions badly. The history of previous attacks of measles should be carefully inquired into and recorded for each child admitted to an institution or hospital. Such records will greatly simplify subsequent immunization work with convalescent serum.

The supply of convalescent blood is bound to remain limited. The great value of recovered serum and of adult serum consists in our being able to obtain it from parents or from other relatives. This supply is constant, always on hand and easily obtainable. The dose of these serums is about two or three times as large as that of convalescent serum.

Of 102 nonimmune children injected after exposure to measles

for varying periods of time, ninety-two were completely protected, seven developed modified measles, and two developed typical measles. Of the two, only one child was injected with convalescent plasma before the fifth day of exposure. One child was protected for twenty-eight days, but developed measles after a second exposure.

Of fifty-eight additional children injected in two institutions, twenty-three developed mild measles and four typical measles. These four children were injected with 3 cubic centimeters of a thirty-five day convalescent plasma. A larger dose of this preparation or the same dose from a more recent convalescent would most probably have prevented the development of the typical form. Of thirty-seven control children who were not injected, seven developed typical measles and only three a mild form of the disease.

SUMMER SCHICK TEST PROGRAM.

To the Parents of the City of Boston:

The Boston Health Department, with the co-operation of the Department of Medical Inspection of the Boston Public Schools, has just finished the Schick testing and toxin-antitoxin immunizations for the control of diphtheria in the public schools of this city.

Our highest mortality rate from diphtheria is in the pre-school age group. The Health Commissioner is very desirous of protecting the children in this age group and has made arrangements with the public school authorities to carry out this work during vacation. More than 50 per cent of the children in the public schools have been found susceptible to diphtheria and those consenting have been protected against this insidious disease. As stated above, our death rate is highest from one to five years of age and because of this fact the school authorities and the Health Department are offering and urging the adoption of toxin-antitoxin injections to protect the children of pre-school age. We are ready and anxious to stamp out diphtheria. Will you help us?

The work will start June 23 and will continue until September 1. A complete list of the school buildings and the dates, etc., of the diphtheria prevention schedule follows. The doctors and nurses will be at these buildings at 10 a. m.

The death rate from diphtheria can be lowered in this city and the lives of your children can be saved. Take your children to that school on the list which is most convenient to your home, on the first day named. This is important.

Very truly yours,

F. X. Mahoney, M. D.
Health Commissioner.

SCHEDULE OF DATES FOR TESTS.

School.	Location.	Toxin–Antitoxin.		
		First.	Second.	Third.
Comins	Terrace and Tremont streets	June 23	June 30	July 7
Dudley	Dudley and Putnam streets	June 23	June 30	July 7
Ellis Mendell	School street, Roxbury	June 23	June 30	July 7
Farragut	Fenwood road, Roxbury	June 23	June 30	July 7
Lafayette	Ruggles street, Roxbury	June 24	July 1	July 8
Lucretia Crocker	Parker street, Roxbury	June 24	July 1	July 8
Nathan Hale	Cedar street, Roxbury	June 24	July 1	July 8
William Eustis	George Street, Roxbury	June 24	July 1	July 8
Edmund P. Tileston	Babson street, Mattapan	June 25	July 2	July 9
Stoughton	River street, Mattapan	June 25	July 2	July 9
Trescott	Rosemont street, Mattapan	June 25	July 2	July 9
Robert Swan	Thetford avenue, Dorchester	June 25	July 2	July 9
William E. Russell	Columbia road, Dorchester	June 26	July 3	July 10
Phillips Brooks	Perth street, Dorchester	June 26	July 3	July 10
Francis Parkman	Walk Hill street, Jamaica Plain	June 26	July 3	July 10
John D. Philbrick	Philbrick street, Roslindale	June 26	July 3	July 10
Damon	Readville street, Readville	June 27	July 11	Aug. 4
Fairmount	Williams avenue, Hyde Park	June 27	July 11	Aug. 4
Henry Grew	Gordon avenue, Hyde Park	June 27	July 11	Aug. 4
Andrews	Genesee street, city	July 14	July 21	July 28
Michelangelo	Charter street, North End	July 14	July 21	July 28
Hancock	Parmenter street, North End	July 14	July 21	July 28
Bowdoin	Myrtle street, West End	July 14	July 21	July 28
Washington	Norman and South Margin streets	July 15	July 22	July 29
Wendell Phillips	Phillips street, West End	July 15	July 22	July 29
William Blackstone	Blossom street, West End	July 15	July 22	July 29
Peter Faneuil	Joy street, West End	July 15	July 22	July 29
John J. Williams	Groton street, South End	July 16	July 23	July 30
Wait	125 Shawmut avenue	July 16	July 23	July 30
Frothingham	Prospect street, Charlestown	July 16	July 23	July 30
Prescott	Elm street, Charlestown	July 16	July 23	July 30
Blackinton	Blackinton and Leyden streets	July 17	July 24	July 31
Emerson	Prescott and Bennington streets	July 17	July 24	July 31
Samuel Adams	Webster street, East Boston	July 17	July 24	July 31
Theodore Lyman	Paris and Gove streets	July 17	July 24	July 31
Daniel Webster	Porter and Lubec streets, East Boston,	July 18	July 25	Aug. 1
Phillip Sheridan	Prescott and Trenton streets	July 18	July 25	Aug. 1
Choat Burnham	Third street, South Boston	July 18	July 25	Aug. 1
Cyrus Alger	Seventh street, South Boston	July 18	July 25	Aug. 1

Absentees, beginning August 5.

DAILY SCHEDULE OF BLOSSOM STREET HEALTH UNIT.

Monday.

Morning.		*Afternoon.*	
9 a. m.	Dental service.	2 p. m.	Dental Service.
10 a. m.	Sanitary inspector.	2 p. m.	Well baby conference.
10 a. m.	District physician.	3.30 p. m.	Health posture class.
11 a. m.	Vaccinations.	5 p. m.	Health clinic for women.
	Antitoxin		
	Antityphoid.		
	Schick test.		
	Toxin-antitoxin.		
	Camps and day nursery examinations.		

Tuesday.

Morning.		*Afternoon.*	
9 a. m.	Dental service.	2 p. m.	Dental service.
10 a. m.	Sanitary inspector.	2 p. m.	Well child conference.
10 a. m.	District physician.	5 p. m.	Health clinic for men.
11 a. m.	Vaccinations.		
	Antitoxin.		
	Antityphoid.		
	Shick test.		
	Toxin-antitoxin.		
	Camps and day nursery examinations.		

Wednesday.

Morning.		*Afternoon.*	
9 a. m.	Dental service.	2 p. m.	Dental service.
10 a. m.	Sanitary inspector.	2 p. m.	Cooking class for mothers.
10 a. m.	District physician.	3.30 p. m.	Nutrition class and conference.
11 a. m.	Vaccinations.	5 p. m.	Health clinic for women.
	Antitoxin.		
	Antityphoid.		
	Shick test.		
	Toxin-antitoxin.		
	Camps and day nursery examinations.		

Thursday.

Morning.		*Afternoon.*	
9 a. m.	Dental service.	2 p. m.	Dental service.
10 a. m.	Sanitary inspector.	2 p. m.	Well baby conference.
10 a. m.	District physician.	3.30 p. m.	Posture class.
11 a. m.	Vaccinations.	3.30 p. m.	Health posture class.
	Antitoxin.	5 p. m.	Health clinic for men.
	Antityphoid.		
	Shick test.		
	Toxin-antitoxin.		
	Camps and day nursery examinations.		
11 a. m.	Nose and throat service.		

FRIDAY.

Morning.	*Afternoon.*
9 a. m. Dental service.	2 p. m. Dental service.
10 a. m. Sanitary inspector.	West End Neighborhood Conference meetings held every third Friday.
10 a. m. District physician.	Staff workers, meeting every fourth Friday.
11 a. m. Vaccinations.	3.30 p. m. Health posture class.
Antitoxin.	
Antityphoid.	
Shick test.	
Toxin-antitoxin.	
Camps and day nursery examinations.	

SATURDAY.

Morning.	*Afternoon.*
9 a. m. Dental service.	2 p. m. Health talks to mothers.
9.30 a. m. Habit forming clinic.	3.30 p. m. Posture class.
9.30 a. m. Home nursing class.	
10 a. m. Sanitary inspector.	
10 a. m. District physician.	
11 a. m. Vaccinations.	
Antitoxin.	
Antityphoid.	
Shick test.	
Toxin-antitoxin.	
Camps and day nursery examinations.	

IMPORTANT SIGNS AND SYMPTOMS IN THE RECOGNITION OF PULMONARY TUBERCULOSIS.*

BY CLEAVELAND FLOYD, M. D., DIRECTOR OF CLINICS, BOSTON SANATORIUM OUT-PATIENT DEPARTMENT.

The early diagnosis of pulmonary tuberculosis still remains one of our most important medical problems. A single striking symptom may announce its onset or a group of slight abnormal feelings may give warning of its approach. Among the latter, listlessness, undue fatigue, ease of tire, especially if accompanied by a persistent though perhaps slight afternoon fever, are of the greatest importance. Still more striking are the following:

Hemoptysis.— Any clearing of the throat or spitting of blood constitutes hemoptysis and demands the most careful investigation. Any spitting of at least one teaspoon of clear blood should be looked upon as presumptive evidence of pulmonary tuberculosis until the contrary is proved. Even if chest or indeed X-ray examinations are negative, the physicians should still keep tuberculosis in mind as the probable diagnosis. The explanation so often given that the blood comes from the back of the throat is practically always a wrong one and does the patient great harm.

* Boston Tuberculosis Association Bulletin No. V.

Fistula in Ano.— A *fistula in ano* or an ischiorectal abscess should be looked upon as tuberculosis and should lead to an examination of the lungs and a search for tuberculosis elsewhere in the body and especially in the lungs. Surgeons are gradually coming to recognize this most important point. Many such fistulas and abscesses have failed to respond to surgical treatment because of the presence of pulmonary tuberculosis. In all such cases treat the individual and not merely the abscess or fistula.

Pleurisy.— A sharp attack of dry pleurisy should make one at least suspect tuberculosis as a possible cause if only to rule it out; a wet pleurisy or pleurisy with effusion should always be regarded as a manifestation of tuberculosis disease. Between 80 to 90 per cent of such wet pleurisies coming on without a preceding acute respiratory infection are due to tuberculosis. Failure to grasp this fact and to treat the patient accordingly means almost certainly the development of active phthisis within the next five years.

It should be borne in mind that in many individuals such definite and striking conditions as enumerated above may be absent so that the disease develops insidiously with only slight or ill-defined minor symptoms.

In childhood, for instance, poor general nutrition, being under weight or failure to gain weight are most important. Listlessness, lack of vigor, irritability or a slight irregular fever should demand careful investigation as to their cause and, as mentioned above, in the adult of equal significance is chronic fatigue, an occasional night sweat, or a mild anemia or a persistent clearing of the throat.

Pulmonary tuberculosis must be recognized when these premonitory symptoms are present and long before there is a chronic cough, marked fever, loss of weight, and certainly a positive sputum if treatment is to be successful.

NOTICES.

I. Prendergast Camp is to be enlarged during the summer months to care for 100 children — fifty boys and fifty girls. Free care. These children must be between the ages of five and twelve, residents of Boston, exposed to consumption with a positive reaction to the Von Pirquet test. Physicians who are caring for children suitable for Prendergast Camp should send them to Boston Sanatorium Out-Patient Department, where they will be examined free. Clinic days are Mondays, Wednesdays, Fridays and Saturdays, from 9 to 11 a. m.

II. Dr. John B. Hawes, 2d, President of the Boston Tuberculosis Association, and Dr. Eli Friedman, Prendergast Camp

physician, will examine children at the camp every Tuesday morning from 10 to 11 a. m. Children who are suitable for preventorium care may be brought to the preventorium for examination. All physicians interested in this work are cordially invited to be present at these examinations.

III. The Trudeau Society has recently been formed for the study of tuberculosis and diseases of the lungs. This society will be the Clinical Section of the Boston Tuberculosis Association. Physicians interested in belonging to it should write Dr. John B. Hawes, 2d, 11 Marlborough street, Boston, for further information.

IV. There is some question about the advisability of holding an institute in the fall of 1924. The suggestion was made that if an institute is held it might be in the form of clinics where each physician might have an opportunity to examine patients with early tuberculosis and children of the preventorium type. It is requested that each physician express himself in regard to his interest in this matter.

ALCOHOL AND THE HUMAN BODY.

The "Journal of the Medical Association" for April 26, 1924, has an interesting item in its foreign letters section from London. with relation to alcohol and its effect on the human system. The observations made are indicated below.

When the advisory committee appointed by the central control board (liquor traffic) published a report in 1918 on the effect of alcohol on the human organism, this was generally regarded as a temperature and scientific contribution to a difficult problem. An enlarged and revised edition of "Alcohol: Its Action on the Human Organism" has just been issued by the government, containing new evidence as supplied by recent research. Among many interesting results yielded by this research is the fact that the rate at which alcohol is absorbed into the blood stream can be modified by the conditions under which alcoholic beverages are drunk. The slower the absorption, the less the degree of inebriation. Food in the stomach acts as a dilution, but certain kinds of food exercise a greater effect than others. Milk, or bread and milk, taken two and a half hours before alcohol, caused absorption of alcohol in the blood to be slower than was observed under any other experimental conditions. Meat, so frequently taken with alcohol, has only a slight influence on absorption. Experiments on the effect of alcohol on speed and accuracy in typewriting showed that the disturbing

influence of the drug was much diminished when alcohol was taken with or soon after food. The popular belief that malted liquors are good for nursing mothers is stated not to be confirmed by scientific evidence. Although alcohol is described in the report as a drug, it is not denied that it is a food in the sense of a fuel that the body can use. But when wine aids toward recovery after illness, this is held to be chiefly because it makes the patient more contented and improves the appetite for ordinary foods. The secret of the charm of alcohol is the sense it creates of careless wellbeing or bodily and mental comfort. The bodily sensation is due to a flushing of the skin with blood, which abolishes all sense of chill. It blunts the sensibility to small aches and pains, which except for those enjoying perfect health, depress humanity. Discussing the value of alcohol as a medicine, the report remarks that its use in hospitals has been much reduced without injury to patients, and in some abandoned altogether. The only point at issue now is whether its use should not be still further curtailed. Alcohol is not, like quinine, a specific cure for any disease. The popular opinion that alcohol in excess is more dangerous to people of sedentary habits is not confirmed, for it is stated in the report that active exercise creates an increasing demand for the drug as a supposed aid to labor. The effect of the daily glass of beer or spirits on length of life is discussed, but the extreme difficulty of forming a scientific conclusion is pointed out. The experience of one insurance company confirms the view that total abstainers live longer than non-abstainers, but other influences besides alcohol have to be considered. The general conclusion is that alcoholic beverages are not necessary for healthy life, that they should be taken diluted and with food, and that they are definitely dangerous for children and for most persons of unstable nervous system.

DETROIT'S EXPERIENCE WITH SMALLPOX.

[From the Detroit "Weekly Health Bulletin," May 17, 1924.]

"During the week of June 9, 118 cases of smallpox were reported, with 15 deaths.

"There are many cases among the pre-school children and among elderly people who have either never been vaccinated or were vaccinated many years ago.

"A large part of the activity of the Health Department is devoted to the search for and vaccination of contacts and the quarantine of cases. A large squad of physicians and nurses is working forenoons and a large part of the afternoon, and another squad of

physicians and inspectors are employed at night establishing quarantines and listing contacts.

"Persons who have a good scar but have not been vaccinated during the past five years are urged to be vaccinated at once. Of course, those who have never been vaccinated and little children should be vaccinated as soon as possible. Smallpox is now invading the better residential districts."

[From the Detroit "Weekly Health Bulletin," May 24, 1924.]

"During the past week 113 cases of smallpox were reported with 27 deaths. Since the beginning of the year a total of 1,268 cases has been reported; during the same period there were 82 deaths from this disease.

"As a result of the publicity campaign, vaccination against smallpox has been renewed with considerable vigor. Additional vaccination stations have been established in four fire houses, two hospitals and in the City Hall. In these stations 28,000 vaccinations have occurred during the past week. During this period 150,000 vaccine points have been issued.

"Certain sections of the city where smallpox has prevailed have been circularized by the Boy Scouts. Twenty-two thousand hand bills have been distributed in these sections by the boys.

"The public press has co-operated well and the clergy have assisted very materially in getting the message of vaccination and revaccination to the people. Hospitals require the vaccination of their patients and personnel, and the physicians report an extensive demand for vaccination at their offices. Manufacturing industries have called for assistance in vaccinating, so that our staff is booked up to the middle of next week."— (*Connecticut State Department of Health.*)

NOTES.

The typhoid season begins with vacation time; when you leave for your annual rest why not be inoculated against typhoid fever.

Smallpox has been reported from many parts of the United States, as well as in foreign countries. The best protection against this disease is vaccination.

Money used for public health yields satisfactory returns; it is an investment rather than a speculation.

By knowledge we are able to escape many of the dangers of diseases; ignorance often makes pitfalls.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during May. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands per Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.19	3.60	33
Anderson, Oscar A	12 26	3.80	86
Antetomasso, Peter	12.43	3.87	31
Barden, R., Creamery Company	13.42	4.80	14
Barron, Clarence W	13.82	4.30	10
Barry, Michael F	12.15	3.72	36
Bemis, Henry E	12.00	3.50	120
Bergmann, John H	12.41	3.72	16
Bolio, Mary J	12.86	3.70	6
Bowditch, E. F., Estate	12.24	3.60	24
Brandley, P. J. & T. J	12.51	3.82	17
Burns, James	12.06	3.70	220
Buxton, William E	12.74	4.10	10
Casey, James D	12.81	3.90	614
Cashin, James F	12.22	3.65	65
Cedar Hill Farms	13.41	4.50	17
Clapp, Frank L	12.06	3.40	164
Clark, Levi	12.08	3.70	32
Chapin, George L	12.20	3.65	60
Childs Brothers	12.42	3.75	51
Cohen, Benjamin	12.92	3.17	254
Corkery, John H	12.20	3.58	378
Creedon & Crowell	12.17	3.77	204
Cummings, F. S., Company	12.00	3.53	17
Cunningham, Paul	12.93	4.05	36
Cusick, William H	12.55	3.85	314
Deerfoot Farms Milk Company	12.57	3.87	18
Denehy, Timothy	12.02	3.55	130
Driscoll, William B., Company	12.36	3.80	18
Duggan Brothers	12.22	3.75	20
Edgerly, Frank S	12.21	3.67	46
Elm Spring Farm Milk Company	12.27	3.75	90
English, John	13.01	3.95	415
Ferguson, Malcolm D	12.17	3.62	710
Floyd Milk Company	12.31	3.82	70

Name of dealer.	Solids.	Fat.	Bacteria, Thousands per Cubic Centimeters.
	Per Cent.	Per Cent.	
Fortune & Allen	12.63	3.75	82
Furbush, Almon J	12.18	3.65	13
Garfield, Mason	14.40	4.80	24
Garvin, Charles E	12.46	4.30	26
Giroux, J. E., & Co	12.12	3.75	20
Griffin, Joseph L	12.27	3.70	15
Griffin Brothers	12.43	3.82	26
Gushee, W. S., & Co	12.40	3.65	14
Hagar, J. M., & Co	12.43	3.75	19
Hancock, T. G., Company	12.18	3.82	32
Herlihy Brothers	12.24	3.80	39
Hickey, Martin J	12.18	3.60	18
Holden, John E	12.54	3.85	55
Holland & Co	12.22	3.70	20
Hood, H. P., & Sons, Inc	12.15	3.66	54
Jones, William T., Company	12.47	3.82	28
Kendall Brothers Company	12.28	3.63	268
Kennedy, Robert J	12.31	3.70	92
Kingston, Samuel	12.98	4.25	20
Klawa & Co	12.25	3.77	20
Knapp, George J	12.14	3.57	41
Lang, Michael J	12.26	3.70	12
Larkin, Patrick	13.45	4.35	334
Larsson, Charles	12.21	3.60	52
Lincoln Farms, Inc	12.60	3.70	12
Lyndonville Creamery Company	12.24	3.50	80
Manning, Peter E	12.04	3.50	10
Maple Farm Milk Company	12.46	3.77	216
McAdams, John F	12.18	3.67	45
McGilvary, Charles D	12.51	4.00	17
McKernan, John	12.79	4.00	22
Moore, Peter	11.93	3.60	306
Morgan, George D	13.12	4.60	124
Munchbach, George	12.32	3.60	121
Newton & Pope	13.01	4.35	112
Noble, William F., & Sons	12.46	3.75	13
Rautenberg, Otto G	12.20	3.75	94
Raycraft, Benjamin F	12.90	3.40	14
Robinson, Albert J	12.42	3.80	32
Robinson, James A	12.23	3.62	20

Name of Dealer.	Solids.	Fat.	Bacteia. Thousands per Cubic Centimeter.
	Per Cent.	Per Cent.	
Runkle, John C	13.20	4.17	27
Schuste, Adam	12.10	3.55	34
Seven Oaks Dairy Company	12.30	3.78	80
Shick, Jacob	13.41	4.20	172
Smith, Charles W	12.28	3.80	60
Smith & Lynch	12.33	3.70	56
Somerset Farms Milk Company	12.52	3.75	12
Sterling Farms Milk Company	12.10	3.60	19
Stone, Howard L	12.20	3.70	12
Stuart, Wallis E	12.69	4.01	15
Sullivan, John D	12.84	4.00	21
Sullivan, John L	12.18	3.70	554
Turner Centre System, Inc	12.46	3.81	157
Vartanian Gazer	12.11	3.67	136
Vartanian Setrag	12.07	3.60	60
Walker Gordon Laboratory Company	12.59	3.92	8
Ware, George H	12.18	3.76	21
Weiler, E., & Sons	12.26	3.80	51
Werner, Ferdinand	12.27	3.65	44
Westwood Farm Milk Company	12.25	3.65	18
White Brothers	12.27	3.85	32
Whiting Milk Companies	12.27	3.82	104
Whittemore, Warner D	12.25	3.80	20
Wiswall, Granville A	12.54	3.75	34
Wittenberg & Co	12.34	3.70	432
Woodland, Charles	12.31	3.70	50

CHAIN STORE MILK.

Name of Dealer.	Supplied by	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.14	3.65	310
The Cloverdale Company	Turner Centre Sytem, Inc.	12.34	3.60	99
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.65	4.05	14
Co-operative Grocery Company,	J. M. Hagar & Sons	12.31	3.70	22
Economy Grocery Company	Turner Centre System, Inc.	12.24	3.65	30
First National Stores, Ltd	Whiting Milk Companies	12.26	3.76	52
Morgan Brothers Company	Whiting Milk Companies	12.32	3.85	22
M. O'Keeffe, Inc	J. M. Hagar & Sons	12.30	3.68	52
Rose Tea Company	H. P. Hood & Sons, Inc.	12.08	3.65	18
M. Winer Company	Hyman Winer	12.50	3.70	36

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH DURING MAY, 1924.

Classification.	Number.	Percentage.
	May.	May.
After death	13	21.31
Seven days or less	6	9.84
Eight to fourteen days, inclusive	2	3.27
Fifteen to twenty-one days, inclusive	0	—
Twenty-two to thirty-one days, inclusive	4	6.56
Within First Month	25	40.98
Within second month	5	8.2
Within third month	3	4.92
Within fourth month	2	3.28
Within fifth month	1	1.64
Within sixth month	4	6.56
Within seventh month	4	6.56
Within eighth month	3	4.92
Within ninth month	0	—
Within tenth month	0	—
Within eleventh month	1	1.64
Within twelfth month	1	1.64
Within First Year Preceding Death	49	80.34
Within second year	3	4.92
Within third year	2	3.28
More than three years	7	11.47
Totals	61	100.00

SUMMARY OF THE WORK, MAY 1, 1924.

BUREAU OF ADMINISTRATION.

	May.	April.
Hearings authorized	0	1
Prosecutions ordered	19	13
Dump applications approved	6	5
Dump applications disapproved	3	2
Offensive trades approved	0	1
Legal notices	398	399
Vacate notices	2	0
Forcible removals	0	8

	May.	April.
Lodging houses certified,	0	7
Conferences	8	3
Personnel:		
Transfers	2	1
Promotions	3	10
Provisional	1	1
Permanent	8	1
Retirements	0	2
Leave of absence	1	0
Lying-in hospitals certified	0	3

LICENSES, PERMITS, ETC., ISSUED.

	May.	April.
Burial permits	1,148	1,180
Milk licenses	1,556	1,264
Beverage licenses granted,	0	2
Pedlers' licenses granted,	915	137
Hen licenses granted	110	606
Stable permit finally granted	0	2
Stable rights revoked	1	0
Stable rights refused	0	1
Poultry licenses granted,	1	0
Undertaker's license granted	0	1
Undertaking establishments authorized	0	1
Denatured alcohol licenses	235	6
Manicure-massage:		
Granted	92	42
Dumps	5	6

MEDICAL DIVISION.

HEALTH UNIT (Blossom Street).

	May.
HEALTH DEPARTMENT PROPER.	
Vaccinations	605
Vaccination certificates	100
Antitoxin, antityphoid, Schick toxin-antitoxin given	33
Children examined for camps and day nurseries	50
Visits by medical inspectors	49
Dental Service:	
Number of operations	1,904
Number of dismissals	307
Number of children treated,	822
Nutrition Service:	
Number of conferences	4
Conference attendance	21
Number of home visits	59
Health and Posture Classes:	
Number of classes	13
Attendance	190
Nose and Throat Service:	
Number of conferences	2
Number of examinations	68
Adenoids and tonsils, operations recommended	29
Nurses' Visits:	
Communicable diseases	267
Babies	636
Children of pre-school age,	157
Children of school age examined	275
Miscellaneous:	
Complaints of insanitary conditions	10
Information requests	300
Resident visitors	15
Non-resident visitors	7

	May.
COMMUNITY HEALTH ASSOCIATION.	
General:	
Home visits by nurses	1,400
Posture classes	10
Posture class attendance	87
Child Hygiene Division:	
Number of conferences	818
Conference attendance	501
New babirs admitted	70
Home visits to babies	874
Home visits to children	103
BOSTON DISPENSARY:	
Calls by district physician	48
BOSTON SANATORIUM:	
Calls by nurses in district	969
JEWISH WELFARE CENTER:	
Nutrition conferences:	
Number	4
Attendance	30
Nutrition Classes:	
Number	4
Attendance	75
STATE DEPARTMENT OF MENTAL DISEASES:	
Habit forming clinics	5
Attendance	40
Home visits	28

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, MAY 1, 1924.

SYPHILIS.

Current cases under investigation May 1, 1924	28
New cases assigned during the month	19
Total	47

Disposition of Cases.

Located:	
Placed under treatment	13
Not Located:	
Search abandoned	11
Under investigation April 30, 1924	23
Total	47

GONORRHEA.

Current cases under investigation April 1, 1924	49
New cases assigned during the month	74
Total	123

Disposition of Cases.

Located:	
Under treatment	6
Placed under treatment	17
Further treatment unnecessary	0
Not located:	
Search abandoned	41
Fraudulent use of name	1
Under investigation April 30, 1924	58
Total	123

SUMMARY.

Current cases under investigation April 1, 1924	77
New cases assigned during the month	93
Total	170

Disposition of Cases.

Located:	
Under treatment	6
Placed under treatment	30
Further treatment unnecessary	0
Not located:	
Search abandoned	52
Fraudulent use of name	1
Under investigation April 30, 1924	81
Total	170

Form letters mailed to above patients	102
Form letters unclaimed returned from post office	23
Form letters accepted by patients	79

Venereal disease complaints	19
New cases	4
Under investigation April 1, 1924	8
Disposition of complaints:	
Placed under treatment	3
Unable to locate	1
No evidence of disease	2
Under investigation May 31, 1924	6
Visits by investigators	313

BUREAU OF COMMUNICABLE DISEASES.

	May.	April.
Visits:		
By medical inspectors,	1,523	1,413
By veterinarian	249	175
By investigator	335	280
By nurses	4,944	4,368
Cases brought to Boston for treatment	110	88
Deaths investigated	16	25
Nurses' Schick activities,	40,485	14,871

	May.	April.
Medical inspector's activities:		
Schick tests	16,012	6,183
Schick readings	16,162	5,683
Toxin-antitoxin injections	8,311	3,005
Vaccinations	669	28
Vaccination certificates	58	0
Antitoxin injections	34	0

CHILD HYGIENE DIVISION.

	May.	April.
Total number of all visits	*4,314*	*4,106*
Visits to new cases	891	869
Visits to old cases	2,919	2,819
Ophthalmia cases:		
Visits by Child Hygiene Division	237	166
Visits by Health Unit	39	*23
Infant mortality investigations	146	137
Maternal death investigations	121	115

* Not included in total number of all visits.

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	May.	April.
New reports	4,962	4,248
Stores inspected	5,646	4,895
Sanitary defects remedied	166	98
Complaints at office	34	52
Referred to Sanitary Division	28	13
Milk applications	214	126
Peddlers:		
Applications for licenses approved	200	186
Vehicles inspected and approved	621	569
Court cases	4	7
Convictions	4	4
Fines	$20	$120
Laboratory Examinations:		
Bacteriological	2	3
Chemical	3	2

CONDEMNATIONS.

Not Requested.

	May.
Beef	2 pounds
Pickles	450
Pluck	1
Potatoes	1,600 pounds
Salami	55 pounds
Liver	4 pounds
Poultry	39 pounds
Shad	220 pounds
Sweetbread	1
Fowl	6 pounds
Dates	36 pounds
Lamb	5 pounds

Requested.

Beef	3 pounds
Bromo-seltzer	12 bottles
Beverage cubes	250
Candy	1,243½ pounds
Butter	6 pounds
Chicken	2 pounds
Celery, bunches	4

	May.
Coffee	18 pounds
Coca Cola	1 pint
Cheese	1 pound
Doughnuts	1 dozen
Fruit crushed)	1½ pounds
Fruit (crushed)	4½ quarts
Ham	9 pounds
Ice cream	27 quarts
Milk	2 quarts
Malted milk	10 bottles
Nuts	2 pounds
Peppers	1 dozen
Soft drinks	36 bottles
Cherries	2 quarts
Oranges	1 dozen
Lemons	1 dozen
Peaches	1 can
Pineapples	1 can
Syrup	37 quarts
Tomatoes	2 pounds
Tongue	1 can

LIVE STOCK INSPECTION (Brighton Abattoir).

	May.	April.
Cattle inspected	251	88
Calves inspected	2,742	4,688
Swine inspected	4,232	4,499
Sheep inspected	1	6
Parts condemned	330	213
Animals condemned	9	21

DAIRY DIVISION.

	May.	April.
Total inspections	1,503	2,486
Dairies inspected	573	312
Scoring above 50 *	326	219
Scoring below	247	93
With milk rooms	341	299
Without milk rooms	232	102
Inactive	34	5
Total cattle inspected	7,405	4,865
Inspection of milk plants and licensed dealers	335	273
Bacteriological examinations	521	1,847
High bacterial counts investigated	15	20
Country creamery inspections	25	29

* Passable mark.

BUREAU OF MILK INSPECTION.

	May.	April.
Chemical inspection of:		
Milk	1,594	1,312
Vinegar	141	65
Butter	0	1
Miscellaneous	3	9
Bacteriological examination of:		
Milk	651	730
Ice cream	68	111
Court cases	29	19
Fines	$390	$175

SANITARY INSPECTION.

	May.	April.
Original inspections	1,976	2,251
New reports	2,583	2,994
Reinspections	8,361	7,234
Legal notices served	323	218
Complaints	998	736
Vacate notices	2	0
Court cases	16	7
Fines	$20	$132

BACTERIOLOGICAL LABORATORY.

	May.	April.
Diphtheria	1,528	1,839
Tuberculosis	290	290
Typhoid	47	43
Gonorrhea	747	772
Gonorrheal ophthalmia	68	48
Syphillis	1,453	1,540
* Other examinations	17	23
Bacteriological examinations of milk	651	730
Bacteriological examinations of ice cream	68	111

* Malaria, 6; typhoid, 1; genito-urinary tuberculosis, 4; cultures for virulence, 2; eosinophilia, 1; Vincent's angina, 3.

IMPORTANCE OF REGISTERING BIRTHS.

It is to be regretted that physicians who neglect to report births attended by them fail to realize the great injustice that is being done the child. One of the supervising nurses employed by the State Department of Health investigating unreported births occurring on Long Island, writes the department as follows:

"An Italian with a large family of children born in this country took his family to Italy for a visit. When they returned it developed that two of the younger children had trachoma, and could not be admitted. The father attempted to prove that they were born in this country, but the births had never been reported and their citizenship could not be established. The entire family then went back to Italy, where they were again excluded, being regarded as American citizens and as undesirable aliens, since the children had trachoma. They are still trying to establish their citizenship, but the solution of their difficulty has not been reached." [*Health News, New York State Department of Health.*

New York State has also enacted a new law which requires every physician performing a vaccination to file a report within ten days with the local health officer, instead of with the State Commissioner of Health as heretofore, using a form furnished by the State Commissioner of Health. The report must include a statement as to whether, upon reexamination after a proper interval, the vaccination was found to be successful or unsuccessful, and wherever possible, the date of the previous successful vaccination.

Local health officers are required to retain in their file the reports received from physicians and to report each month to the State Department of Health the number of vaccinations reported during the preceding month, indicating how many were successful and how many were unsuccessful.

VITAL STATISTICS, MAY, 1924.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING MAY, 1924, WITH COMPARATIVE FIGURES FOR MAY, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
ALL CAUSES:						
Total deaths	928	940	—12	14.34	14.64	—.30
Nonresidents deducted	764	791	—27	11.80	12.32	—.52
BY AGE:						
Under one year	112	120	—8	1.73	1.87	—.14
One year to four years, inclusive	57	54	+3	.88	.84	+.04
Sixty years and over	320	338	—18	4.94	5.26	—.32
BY SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy	62	63	—1	.96	.98	—.02
Arteriosclerosis	36	32	+4	.56	.50	+.06
Heart disease	152	158	—6	2.35	2.46	—.11
Nephritis, chronic	56	55	+1	.86	.86	—
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births	1,672	1,641	+31	25.83	25.56	+.27
b. Registered stillbirths	55	64	—9	.85	1.00	—.15
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	31.85	37.54	—5.69
c. Deaths of mothers from causes incident to childbirth	9	16	—7	.14	.25	—.11
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	5.21	9.38	—4.17
Deaths of children in first year of life	112	120	—8	1.73	1.87	—.14
Deaths in first year per 1,000 live births,	.....	.....	.....	66.98	73.13	—6.15
VIOLENCE:						
Accidents	33	45	—12	.51	.70	—.19
Homicides	1	3	—2	.015	.05	.035
Suicides	9	12	—3	.14	.19	—.05
MISCELLANEOUS:						
Alcoholism, acute or chronic	12	10	+2	.18	.15	+.03
Broncho-pneumonia	51	35	+16	.79	.54	+.25
Cancer	92	95	—3	1.42	1.48	—.06
Cirrhosis of the liver	7	2	+5	.11	.03	+.08
Diabetes mellitus	20	12	+8	.31	.19	+.12
Diarrheal diseases, children under two years of age	4	8	—4	.06	.13	—.07

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases...	**2**	—	+2	**.03**	—	+.03
Deaths..	—	—	—	—	—	—
Cerebrospinal meningitis.....Cases...	**2**	3	—1	**.03**	.05	—.02
Deaths..	**2**	2	—	**.03**	.03	—
Diphtheria.....Cases...	**219**	282	—63	**3.38**	4.39	—1.01
Deaths..	**15**	14	+1	**.23**	.22	+.01
Influenza.....Cases...	**10**	2	+8	**.15**	.03	+.12
Deaths..	**1**	2	—1	**.015**	.03	+.015
Measles.....Cases...	**729**	1,278	—549	**11.26**	19.91	—8.65
Deaths..	**3**	8	—5	**.05**	.13	—.08
Pneumonia (lobar).....Cases...	**171**	81	+90	**2.64**	1.26	+1.38
Deaths..	**38**	36	+2	**.59**	.56	+.03
Scarlet fever.....Cases...	**404**	397	+7	**6.24**	6.18	+.06
Deaths..	**5**	4	+1	**.08**	.06	+.02
Tuberculosis (pulmonary).....Cases...	**183**	175	+8	**2.83**	2.72	+.11
Deaths..	**63**	69	—6	**.97**	1.07	—.10
Tuberculosis (other forms).....Cases...	**42**	45	—3	**.65**	.70	—.05
Deaths..	**15**	13	+2	**.23**	.20	—.03
Typhoid fever.....Cases...	**12**	9	+3	**.18**	.14	—.04
Deaths..	—	—	—	—	—	—
Whooping cough.....Cases...	**75**	170	—95	**1.16**	2.65	1.49
Deaths..	**1**	12	—11	**.015**	.19	—.175

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1,..... (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, JULY, 1924. No. 7

Rec'd AUG 11 1924 B. P. L.

NASAL DOUCHES AND SPRAYS.

We frequently see this or that medicant recommended as a nasal douche or spray to cure a cold or to prevent infection with influenza or some other disease which is supposed to gain entrance to the body through the nose. Most of those who have followed out such recommendations will be found to be not very enthusiastic over results. This is so especially if the recommendations have been tried out faithfully on several different occasions. It is not unusual to hear an opinion expressed that the application to the nasal mucous membrane of some highly recommended antiseptic or germ killer failed to prevent sickness or that it seemed to make a cold worse. Such experimenters are simply bearing testimony to the fact that anything which tends to interfere with the natural secretions of the nasal mucous membrane is likely to do more harm than good. The dry irritating atmosphere of our habitations in winter puts the nasal mucous membrane in condition favorable to infection, and unless skillfully used nasal douches or sprays whether intended for the treatment or prevention of infection may also do serious harm. The reasons why this is so were admirably expressed by a high authority, Dr. St. Clair Thomson, in the London "Lancet" of June 21, 1924:

"In the 'Lancet' of June 7, page 1175, there is printed the

section of the Memorandum on Encephalitis Lethargica issued by the Ministry of Health, giving, amongst other directions, some 'Precautions against Infection.' Here it is suggested that—'those in contact with the case may be advised to use antiseptic nasal sprays or douches and to gargle the throat with solutions such as those advised for influenza. For example, any of the following: 1. One per cent solution of peroxide of hydrogen. 2. A solution of permanganate of potash, 1 in 5,000, in 0.8 per cent solution of chloride of sodium (common salt). 3. Liquor sodæ chlorinatæ, 0.5 per cent.'

"Now, when this memorandum suggests that 'these solutions can be used as ordinary throat gargles,' I do not think anyone can object to their use. They may certainly be helpful in cleansing and disinfecting the mouth and pharynx—cavities which are only able to protect themselves against bacterial invaders and their products either by expectorating them or by swallowing them into the stomach. There is nothing in the three suggested remedies to damage the mucosa of the mouth and pharynx. But a very different question is raised when it is advised that they should be 'snuffed up the nostrils or applied by an efficient spray.' The nasal cavities in health are very sensitive and highly organised chambers. The ordinary nerves of sensation, with which they are freely supplied, resent any irritating liquid and any antiseptic, except in such a weak solution as to be useless. The olfactory nerves are readily deteriorated by the use of any but warm, alkaline lotions, isotonic with the blood, and if they are benumbed one of the defensive mechanisms of the nose is weakened. The much more important defensive arrangements supplied by the normal mucus of the Schneiderian membrane, the ciliated epithelium, and the delicate mechanism of the turbinal bodies would all be interfered with by using any of the three suggested solutions as a nasal douche or spray. It is nearly 30 years since Prof. R. T. Hewlett and myself demonstrated that the interior of the healthy nose is a sterile cavity, that the nasal mucus in health is inhibitory to bacterial growth, and that the ciliated epithelia are active and never resting 'chuckers-out' of any invaders.

"The practical application of these researches is shown by the general disposition of rhinologists to abstain, when possible, after operation, from the use of powders, antiseptics, or plugs in the nose. An antiseptic, to be of any bactericidal value, would have to be of such a strength that it would produce a quite intolerable irritation of the nasal mucosa. Where milder antiseptics have been used, and benefit has been claimed from them, any good effect has doubtless been due to the stimulation of an increased flow of mucus. In

conditions of disease, such as ozana and syphilis, where the sense of smell, the ciliated epithelia, and the turbinal bodies have been all more or less destroyed, the circumstances are different. The nose is then a septic cavity, its sensitive and defensive mechanism are lost, and stronger antiseptics can be used with benefit. During previous influenza epidemics I have seen several cases of damage to the middle ear, and to the accessory sinuses, in patients who had taken their advice from the daily press and had been sniffing Condy's fluid up their nostrils.

"It would be well, therefore, if the Ministry of Health's recommendations limited the use of these three lotions to their employ as gargles and mouth washes. The healthy nose provides for its own sterility, and this cannot be improved on. Blowing is all that is required for cleansing it of used-up mucus. If the nose falls below a standard of health—becoming either catarrhal or stenosed—it can be assisted, without harm, by using warm, alkaline lotions, isotonic with the blood. The simplest and readiest is normal saline solution. Others can be made by dissolving 10 gr. of borax or 6 gr. of soda in an ounce of water. Or several of these alkalis can be mixed together and prescribed in the strength of 5 gr. to the ounce. A little white sugar or glycerine or a mild antiseptic (menthol, sanitas, thymol, and the like) in a minute dose may be added to give a pleasant flavor. But all antiseptics are irritating to the nasal mucosa; in a normal nose they are useless and in efficient strengths they are harmful."

IVY POISONING.

Ivy poisoning is caused by the contact of the skin of susceptible persons with the resinous exudate of the plant known as poison ivy (*Rhus toxidodendron*). Similar effects in susceptible persons may be produced by the resin of other plants, including poison oak (*Rhus diversiloba*), or a certain species of sumac (*Rhus vernix*). In lacquered Oriental wooden ware and novelties there is used in the preparation of the lacquer the resin of a tree, the Japanese lacquer tree, which belongs to the same botanical family as the plants named above, and it is said that the handling of articles covered with this lacquer may cause inflammation in the skin of susceptible persons similar to ivy poisoning.

To produce so-called ivy poisoning the resin of the plants above referred to must come in actual contact with the skin of the susceptible persons. This may be brought about by actually handling the plant itself, but the same result may be accomplished by handling articles such as shoes or clothing which may have come in

contact with these plants. Very minute amounts of the resin are sufficient to cause an inflammation of the skin of a susceptible person. When poison ivy is burned a sufficient amount of resin to produce poisonous effects may be carried long distances through the air in the smoke.

To a certain extent ivy poisoning is like hay fever,— only susceptible persons are affected by the resin. The severity of the symptoms from the same exposure to poison ivy also varies in different persons. In one person perhaps only a temporary itching may be produced, while another person may experience long-continued painful or even dangerous effects. Moreover, the degree of susceptibility seems to vary at different times in the same person. A person who has handled poison ivy for years without experiencing any ill effects whatever may unexpectedly find that he is developing a severe case of ivy poisoning.

In view of the fact that there is this difference in susceptibility to ivy poisoning in different individuals, just as some persons develop hay fever from exposure to ragwood or goldenrod and others do not, it has been attempted to treat ivy poisoning by vaccination in a manner similar to the approved treatment for hay fever. Hypodermic injections have been made of extracts of poison ivy, and weak tinctures of poison ivy have been taken internally, by mouth. The results have been encouraging, but thus far this form of treatment is still in the experimental stage.

In an ordinary case of ivy poisoning one is called on to deal first with the irritating effects of the actual presence of the poisonous resin on the skin. This causes destruction of the skin itself, which may be complicated by infections of various sorts, so that before one is through with a severe case of ivy poisoning he has to deal with the healing of tissues just as in a case of burn or an injury.

The first treatment for ivy poisoning therefore will logically be an effort to remove whatever resin there may be on the skin. Perhaps there is nothing better to accomplish this purpose than common soap applied thickly and washed off by alcohol if available, and if not with warm water. This process may be repeated, provided it does not seem to produce in itself too much irritation of the skin. There are various other applications which are recommended for subsequent treatment. In some cases they evidently produce beneficial results, in other cases their application is disappointing. Among these applications may be recommended a saturated solution of epsom salts, a dilute solution of hypochlorite of soda, with or without a small amount of carbolic acid. Where the destruction of tissue or the inflammation is extensive, a case of ivy poisoning always calls for attendance by a competent physician.

CARBONATED NONALCOHOLIC BEVERAGES.

Following a practice now established, the annual conference of all persons licensed by the Health Commissioner to manufacture or bottle certain nonalcoholic beverages was held on July 16, just before the close of the present license year. The general topics for discussion were the laws and regulations relative to the manufacture or bottling of nonalcoholic beverages.

The practicability of the application of these laws and regulations was freely discussed, but while it was only natural that the manufacturers or bottlers were interested in the commercial aspect of their own businesses, co-operative willingness to comply with technical requirements was evidenced by all. It is well, however, to record for reference some of the items that were discussed and their significance.

It developed during the conference that the sanitary condition of the premises used by the bottlers or manufacturers was generally good, which is a source of satisfaction to the Health Department, and serves as an indication of the good intention of these producers of beverages to offer to the public a clean, sound, wholesome product produced under the best of conditions. The subject of use of labels was brought up and freely discussed. It appeared from the regulations that "each manufacturer shall mark or label each bottle or beverage so that there will be no confusion as to the contents, the source of supply or the article contained therein. In accordance with the provisions of General Laws, chapter 94, sections 181 and 182, and regulations made thereunder, such mark or label shall include a plain and conspicuous statement of the net quantity of contents, in terms of the largest unit of standard liquid measure, and such statement shall be printed in type not smaller than 8-point (brevier) capitals." Bottled goods are included within the term "canned goods," and the law of this state requires that canned articles of food shall not be offered for sale unless marked to indicate the grade or quality thereof and the name and address of the person who packs or sells them. In order properly to comply with the food and drug law it is essential that containers be labelled so that the public may not be misled as to the nature of the contents. In other words, it is necessary that imitation products be labelled so as to indicate that the mixture is not made from pure fruit juices. The use of the word "imitation" where a product other than that made from pure fruit juices is offered for sale is the only adequate description of the true nature of contents, and no other words, tending to convey a similar meaning, are sufficient. The word "imitation" is brief and adequate, and conveys exactly the meaning

that it is grammatically intended to convey, and its use makes it impossible for consumers of the beverage to purchase a product made from synthetic compounds when a pure fruit compound is desired.

It was suggested at the conference that the compulsory use of the word "imitation" on synthetic compounds was detrimental to the commercial aspect of the business, as it was claimed that other words might be used to indicate sufficiently the presence of artificial flavoring or coloring matter. The Federal standards require on orangeade, for instance, 25 per cent of fruit juice, and are contemplating the increase of this standard to 33 per cent of real fruit juice, so that any so-called orangeade that contains less than this required amount of pure fruit juice cannot legally be labelled "orangeade." While, however, the word "imitation" must be used on labelling containers where the ingredients are not pure fruit juices, it is not necessary to use the word "imitation" on products which contain artificial coloring, where the ingredients are made from pure fruit juices. On the other hand, a dealer who buys a synthetic compound which is labelled as imitation must label his product as an imitation when it is finally ready for sale to the public. It would appear that any effect which the use of the word "imitation" might have on the commercial aspects of the beverage bottling or manufacturing business would have its advantage in letting the public know that when a beverage that does not contain the pure fruit juice in its ingredients is marked as an imitation, the manufacturer or bottler does not intend that his product shall be accepted as anything other than as an imitation. His intention not to mislead the public is best shown by the use of the word "imitation" on his labels when an imitation product is offered, and the public will be grateful.

While the use of artificial coloring or flavoring matter is permitted when properly designated on label, the use of saccharine, as a substitute for sugar, is absolutely prohibited by the regulations. The use of saccharine impairs the food value of the product, and extreme care should be taken to prevent its use as an ingredient in the manufacture of beverages.

The Health Department feels that it will have the wholehearted support and co-operation of manufacturers or bottlers of carbonated nonalcoholic beverages in insuring to the public a product that is made strictly in accordance with the requirements of law or regulation, that is properly labeled as to contents, and that is produced under the best of sanitary, wholesome conditions. These annual conferences will be continued, because in this way the enforcers of the law and the parties against whom enforcement is sought are brought into an informal contact that makes for better under-

standing of the requirements necessary and the means to be taken to bring about the best possible harmony between licensing officials and licensed dealers of food products.

DISCONTINUANCE OF THE "CLINIC."

The absence of the "Clinic" from the columns of the Boston *Transcript* Wednesday afternoons has led to inquiry which indicates that the *Transcript* has discontinued this health service.

All those who have been readers of that department, and these readers include many physicians, health workers and sanitarians in all parts of the country, will regret the action on the part of the *Transcript*, and a good many local Boston men have expressed a wish that the *Transcript* might change its mind in this matter.

The "Clinic" was established while Mr. Tracy was editor of the newspaper, some fifteen years ago, and since that time has appeared regularly in the Wednesday issues, with the exception of a short emergency discontinuance during the war. It has been notable for the scope of its observation, presenting an unusual review of health procedure, medical and sanitary, omitting no corner of the earth from its items. It attracted the attention of health authorities at home and abroad, and many news matters of consequence had found first presentation in its weekly abstracts. It established a remarkable list of correspondents, which included workers in China, Japan, Korea, the interior of Hindustan, Africa, South America and Polynesia, as well as those of our own country, from whom came to Boston most up-to-date information concerning educational procedure.

The "Clinic" recognized in their inception a good many movements that afterwards became regular procedure in health administration, and foreshadowed the importance of the public health nurse at a time when the nursing profession was just feeling its way, and was in at the beginning of open-air school work, dental inspection in the schools and half a dozen other steps forward in public health.

The modern weapon of health administration is health education, and as one of the strongest exponents of this principle the "Clinic" in the Boston *Transcript* has stood forth for health education from the very beginning. It has been truly a pioneer in the most important health movement of the times. The "Monthly Bulletin" is glad to add its request to the many personal ones that will be made for the retention by the *Transcript* of this valuable public health service.

CARE ON VACATION.

The advent of the vacation season brings to mind several considerations which should have the careful thought of each vacationist. In the first place, a suitable location should be selected, one that insures a good, safe water supply, and clean, sanitary surroundings. To safeguard one's self against possible dangers from a water supply the condition of which is not surely known, it is extremely wise to receive the antityphoid inoculation. This is a simple procedure, and can be performed by any reputable physician. There are very slight after-effects, but these are only temporary, and in some instances no physical changes present themsleves. If this inoculation is taken, the immunity against contracting typhoid fever lasts for three years, and is a splendid safeguard.

Care should also be taken to select a place that gives the best choice of something different from the program to which you have been accustomed during the rest of the year. The city dweller should select a seashore, mountain or lake, or country resort in which to spend his vacation, because it is in these places that he finds the pure fresh air that the congestion of the city usually denies him. The extreme popularity of the automobile today as a means of deriving pleasure makes it possible to get away from the confinement of cities more easily and conveniently so that as much benefit may be derived from extended trips on one's vacation as the selection of a place in which to sojourn for a more or less protracted period. However, automobile tourists should endeavor to so arrange their itineraries that they receive the maximum amount of sleep and rest, and so that they partake of regular meals. It is easy to convince one's self while enjoying the comforts of an automobile ride that you can forego or postpone mealtime in order to arrive at a certain prearranged place upon the schedule at a certain time; but the ride will be just so much more enjoyable if you have fortified yourself against undue fatigue by having your meals regularly.

The principal object in taking a vacation seems generally to be the necessity for a change of environment. The very fact of such a change gives one rest and recreation, because there is something different to do and a different outlook at all times, which provides mental and physical relaxation.

The combination, therefore, of clean, sanitary surroundings, an environment that gives one a desired change necessary to proper rest and relaxation, and the wise indulgence in the recreation that offers itself, gives one the variety that produces the most beneficial results during vacation.

Milk is a good summer drink; include it in your daily diet.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during June. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.43	3.71	52
Anderson, Oscar A.	12.42	3.75	108
Antetomasso, Peter	12.29	3.62	42
Barron, Clarence W.	13.86	4.70	6
Barry, Michael F.	12.24	3.60	48
Bemis, Henry E., Estate of	12.56	3.66	48
Bergmann, John H.	12.43	3.67	50
Bolio, Mary J.	13.12	4.00	19
Bowditch, Estate, E. F.	12.08	3.50	20
Brandley, P. J. & T. J.	12.51	3.85	6
Burns, James	12.28	3.65	64
Buxton, W. E.	13.56	4.60	403
Casey, James D.	13.18	4.20	134
Cashin, James F.	12.33	3.65	76
Cedar Hill Farms, Inc.	13.12	4.45	10
Chapin, George L.	12.20	3.65	20
Childs Brothers	12.31	3.61	61
Clapp, Frank L.	12.90	4.00	52
Clark, Levi	12.22	3.70	20
Cohen, Benjamin	12.56	3.90	128
Corkery, John H.	12.18	3.52	57
Creedon & Crowell	12.32	3.82	236
Cummings, Francis S., Company	12.27	3.73	17
Cunningham, Paul	13.40	4.20	59
Cusick, William H.	12.21	3.58	436
Deerfoot Farms Milk Company	12.52	3.86	15
Denehy, Timothy	12.38	3.70	88
Driscoll, William B., Company	12.46	3.80	28
Edgerly, Frank S.	12.40	3.78	58
Elm Spring Farm Milk Company	12.20	3.72	28
English, John	13.56	4.25	24
Ferguson, Malcolm E.	12.63	3.87	29
Floyd Milk Company	12.34	3.70	60
Fortune & Allen	12.74	4.00	89
Furbush, Almon J.	12.21	3.40	208

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Garfield, Mason	14.14	4.85	8
Garvin, Charles E	12.94	4.30	8
Giroux, J. E., & Co	12.16	3.70	32
Griffin, Joseph L	12.68	3.73	17
Griffin Brothers	12.46	3.80	55
Gushee, W. S. & Co	12.42	3.77	17
J. M. Hagar & Sons, Inc	12.20	3.50	60
Hancock, T. G., Co	12.46	3.82	44
Herlihy Brothers	12.30	3.75	45
Hickey, Martin J	11.86	3.40	72
Holden, John E	12.46	3.75	35
Holland & Co	12.54	3.85	108
Hood, H. P., & Sons, Inc	12.27	3.70	43
Jones, W. T., Company	12.66	3.90	18
Kendall Brothers	12.16	3.45	76
Kennedy, Robert J., Jr	12.69	3.95	150
Kingston, Samuel	12.81	3.87	24
Klawa & Freeman	11.99	3.57	65
Knapp, Geo J	12.69	3.80	126
Lang, Michael J	12.25	3.65	24
Larkin, Patrick	12.38	3.75	436
Larsson, Charles	12.34	3.62	20
Lincoln Farms, Inc	12.70	3.70	10
Lyndonville Creamery Company	13.99	5.27	472
Manning, Peter	12.00	3.55	162
Maple Farm Milk Company	12.38	3.67	360
McAdams, John F	12.29	3.60	76
McGilvray, Charles D	13.20	4.40	12
McKernan, John	12.26	3.45	14
Moore, Peter	12.70	3.85	233
Morgan, George D	14.24	6.00	44
Munchbach, George	12.40	3.60	81
Newton & Pope	12.90	4.10	32
Noble, W. F., & Sons	12.69	3.82	16
Rautenberg, Otto G	12.36	3.67	24
Raycraft, Benjamin F	12.44	3.90	8
Robinson, Albert J	12.58	3.75	54
Robinson, James A	12.29	3.53	64
Runkle, John C	13.46	4.50	28
Schuste, Adam	12.29	3.70	31

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Seven Oaks Dairy Company	12.42	3.72	73
Shick, Jacob	12.73	3.82	56
Smith & Lynch	12.62	3.90	32
Somerset Farms Creamery Company	12.81	3.95	17
Sterling Farms Milk Company	12.70	3.81	33
Stone, Howard L	12.20	3.55	16
Stuart, Wallis E	12.74	3.90	22
Sullivan, John D	12.48	3.80	34
Sullivan, John L	12.31	3.45	14
Turner Centre System, Inc	12.58	3.90	31
Vartanian, Gazar	12.07	3.62	284
Vartanian, Setrag	12.16	3.77	34
Walker Gordon Laboratory Company	12.77	4.20	9
Ware, George H	12.44	3.81	32
Weiler, E., & Sons	12.67	3.90	107
Werner, Ferdinand	12.22	3.66	36
Westwood Farms Milk Company	12.42	3.63	13
White Brothers	12.36	3.80	62
Whiting Milk Companies	12.17	3.42	106
Whittemore, Warner D	12.25	3.80	17
Wiswall, Granville A	12.54	3.70	81
Wittenberg & Co	12.26	3.66	313
Woodland, Charles A	12.20	3.55	17

CHAIN STORES MILK.

Name of Dealer.	Supplied by	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc	12.12	3.66	104
The Cloverdale Company	Turner Centre System, Inc.	12.64	3.88	173
John T. Connor Company	Bellows Falls Co-operative Creamery Association.	12.61	4.03	18
Co-operative Grocery Company	J. M. Hagar & Sons	12.30	3.70	21
Economy Grocery Company	Turner Centre System, Inc.	12.61	3.78	38
First National Stores, Ltd	Whiting Milk Companies	12.33	3.63	740
Morgan Brothers Company	Whiting Milk Companies	12.10	3.58	522
M. O'Keeffe, Inc	J. M. Hagar & Sons	12.37	3.68	35
Rose Tea Company	H. P. Hood & Sons, Inc., and Whiting Milk Companies.	12.57	3.61	42
M. Winer & Co	Hyman Winer	12.40	3.60	254

MASSACHUSETTS ASSOCIATION OF BOARDS OF HEALTH.

The regular quarterly meeting was held Thursday, July 24, 1924, at 12.30 p. m., at the Atlantic House, Nantasket.

Papers read were as follows:

1. "Juvenile Tuberculosis," illustrated by X-ray plates. H. D. Chadwick, M. D., Superintendent Westfield State Sanitorium.

2. "The Ten-Year Tuberculosis Program of the Department of Public Health." J. I. Pinckney, M. D.

3. "The Results of Suspected Hilum Tuberculosis in Childhood." Cleveland Floyd, M. D.

SOME FACTS ABOUT ICE.

Suggestions for the Economical Household Use of Ice.

If a block of iron be brought indoors in the winter time into a warm room it will lower the temperature of the room. The cold iron will finally reach the same temperature as the air in the room and in warming up the iron the air of the room will lose more or less of its heat. The colder it is out of doors where the iron has been the more heat it will take to warm the iron up to a certain temperature and the more the iron will tend to lower the temperature of the surrounding air in the room.

In the same way the cooling capacity of ice depends to a certain extent on its temperature when it is put in the refrigerator. Ice as well as water varies greatly in temperature and the temperature of natural ice depends upon the temperature of the weather when the ice was cut and stored and the extent of its exposure to warmer air afterwards. A piece of ice which has been carried and left around in warm weather until it has been warmed up nearly to the melting point has lost a substantial part of its cooling capacity and of its value.

But the chief value in ice for cooling purposes lies in two other properties of ice which a piece of cold iron does not possess. Iron conducts heat more rapidly than ice. A piece of iron which is not as warm as the temperature of the body always feels cold because it conducts heat away from the hand so rapidly and therefore iron quickly acquires the temperature of the room and soon cools off the surrounding atmosphere as much as it is capable of doing. Ice is a poor conductor of heat and its cooling effect is more gradual and continues longer. But the greatest value of ice for cooling purposes lies in the fact that after the temperature of the ice has reached the melting point at 32 degrees it must absorb a very large amount of heat from the surrounding atmosphere or surrounding objects

before it can change from ice to water of the same temperature. Before a 50-pound piece of ice at a temperature of 32 degrees can melt into water of the same temperarure, it must absorb an amount of heat sufficient to raise the temperature of 41 pounds of water from 32 degrees to the boiling point.

A similar absorption of heat also takes place before salt and other crystalline substances can dissolve in water, and advantage is taken of this fact in the common practice of adding salt to the ice in freezing ice cream. The melting of the ice demands a large amount of heat which is derived in part, anyway, from the cream and the dissolving of the salt in the melted ice demands still more, with the result that the temperature of the cream itself is reduced below the freezing point.

A change of water or other liquids from a liquid to a vapory or gaseous state is also attended by the absorption of large amounts of heat, a fact which is utilized practically in manufacturing artificial ice or maintaining low temperatures in refrigerating plants by the evaporation of liquid ammonia or carbon-dioxide.

The only way ice can cool anything or keep anything cool is by the warming up and melting of the ice through the absorption of heat from something else. The practical points to keep in mind, therefore, in the economical use of ice are to see that it is secured as cold as possible and that the heat required to warm it up and melt it is supplied so far as possible by the articles it is desired to keep cold and not by the general atmosphere.

The household refrigerator should be no larger than necessary. The refrigerator should be located in as cool a place as possible. The cover and doors of the refrigerator must shut tightly. The ice should be put in the refrigerator as quickly as possible. The refrigerator, especially the compartment containing the ice, should be opened no oftener than unavoidable and kept open no longer than absolutely necessary.

The refrigerator and not ice itself should be used for supplying cold drinking water; tea and other drinks should be kept in bottles in the refrigerator. Breaking ice and putting it in drinks is not only a wasteful use of ice but involves an unnecessary and too prolonged opening of the ice compartment of the refrigerator.

The object of ice in a refrigerator is to keep articles of food at such a low temperature that their decomposition is prevented or retarded. This object is secured through the absorption by the ice of heat from the contents of the refrigerator, and as a result the ice melts. The rapidity with which it is necessary to let ice melt to prevent food from spoiling depends on the way the refrigerator is made, its tightness, its size, the general temperature of the place

where it is kept, care in opening it and the state of the weather. The rapidity of the melting of the ice in the refrigerator may be checked by wrapping it in some poor conductor of heat, like newspapers, and it is always well to cover the top and sides of a piece of ice with newspapers when it is put in the refrigerator, especially as this covering protects the ice from direct contact with warm air when the ice compartment is opened. It is, however, quite possible to overdo this procedure and wrap the ice so thoroughly with a non-heat conducting material that the ice will be unable to absorb heat sufficiently from the contents of the refrigerator to lower their temperature enough to keep them from decomposing.

CHICAGO IN BIRTH REGISTRATION AREA.

In the issue of the "Bulletin" for April, 1924, page 110, a table on infant mortality statistics from ten largest cities in the United States for 1923 stated that Chicago was not in the Birth Registration Area. The statement that Chicago was not in the Birth Registration Area was correct, as far as our information went at the time this table was compiled. The Boston Health Department is glad to know, however, that Chicago is included within the Birth Registration Area, and apologizes for any misleading impressions which may have been created with reference to the completeness of Chicago's birth statistics by reason of the statement which appeared in the recent issue of this "Bulletin."

BONE, JOINT AND GLANDULAR TUBERCULOSIS SERVICE.

The Boston Sanatorium started at the sanatorium, River street, Mattapan, on July 15, 1924, a special service for bone, joint and glandular tuberculosis in children of both sexes, from the ages of five to twelve. In the wards set apart for this purpose there is room for ten boys and ten girls. Because of the limited number of patients who can be received at present, it has been decided that each applicant must be examined by the medical officer in charge, in order that satisfactory cases may be admitted. Only ambulatory cases will be received.

Patients must be residents of the City of Boston.

Application for admission should be made at the Out-Patient Department of the Boston Sanatorium, 48 Rutland street, Boston, between the hours of 9 and 11 a. m., on Saturdays, until the complement of patients has been received.

Letters in regard to patients may be written and addressed to the superintendent of nurses at the Out-Patient Department.

The sanatorium will continue to admit the same sort of pulmonary tuberculosis cases of all ages as in the past. It is expected later that separate wards can be set apart for such cases, and that they can be admitted in greater numbers than heretofore.

LEST WE FORGET.

"Thousands of children are killed every year because parents say, 'They will have it anyway,' and permit the little ones to expose themselves to whooping cough, measles and scarlet fever," says the United States Public Health Service.

TEN GOLDEN RULES OF HEALTH FOR SCHOOL CHILDREN.

1. Play hard and fair — be loyal to your team mates and generous to your opponents.

2. Eat slowly. Do not eat between meals. Chew food thoroughly. Never drink water when there is food in the mouth. Drink water several times during the day.

3. Brush your teeth at least once a day. Rinse your mouth out well with water after each meal.

4. Be sure your bowels move at least once a day.

5. Keep clean body, clothes and mind. Wash your hands always before eating. Take a warm bath with soap once or twice a week; a cool sponge (or shower) bath each morning before breakfast and rub your body to a glow with a rough towel.

6. Try to keep your companions, especially young children, away from those who have contagious diseases.

7. Use your handkerchief to cover a sneeze or cough and try to avoid coughing, sneezing, or blowing your nose in front of others.

8. Study hard — and in study, work or play do your best.

9. Sleep. Get as many hours in bed each night as this table indicates for your age. Keep windows in bedroom well open.

Hours of Sleep for Different Ages.

5 to 6	13	12 to 14	10½
6 to 8	12	14 to 16	10
8 to 10	11½	16 to 18	9½
10 to 12	11		

10. Be cheerful, and do your best to keep your school and your home clean and attractive and to make the world a better place to live in.

RULES OF HYGIENE.

1. Ventilate every room you occupy.
2. Wear loose, porous clothing suited to season, weather, and occupation.
3. If you are an indoor worker, be sure to get recreation outdoors.
4. Sleep in fresh air always; in the open if you can.
5. Hold a handkerchief before your mouth and nose when you cough or sneeze and insist that others do so too.
6. Always wash the hands before eating.
7. Do not overeat. This applies especially to meats and eggs.
8. Eat some hard and some bulky foods; some fruits.
9. Eat slowly — chew thoroughly.
10. Drink sufficient water daily.
11. Evacuate thoroughly, regularly.
12. Stand, sit, and walk erect.
13. Do not allow poisons and infections to enter the body.
14. Keep the teeth, gums, and tongue clean.
15. Work, play, rest, and sleep in moderation.
16. Keep serene. Worry is the foe of health. Cultivate the companionship of your fellow men.
17. Avoid self drugging. Beware the plausible humbug of the patent medicine faker.
18. Have your doctor examine you carefully once a year. Also consult your dentist at regular intervals.— (U. S. P. H. S.)

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH DURING JUNE, 1924.

Classification.	Number.	Percentage.
	June.	June.
After death	3	5.36
Seven days or less	3	5.36
Eight to fourteen days, inclusive	2	3.57
Fifteen to twenty-one days, inclusive	4	7.14
Twenty-two to thirty-one days, inclusive	4	7.14
Within First Month	16	28.57
Within second month	9	16.07
Within third month	3	5.36
Within fourth month	2	3.57
Within fifth month	1	1.79
Within sixth month	—	—
Within seventh month	3	5.36
Within eighth month	2	3.57
Within ninth month	1	1.79
Within tenth month	1	1.79
Within eleventh month	1	1.79
Within twelfth month	—	—
Within First Year Preceding Death	39	69.66
Within second year	5	8.93
Within third year	4	7.14
More than three years	8	14.28
Totals	56	100.01

SUMMARY OF THE WORK, JUNE 1, 1924.

BUREAU OF ADMINISTRATION.

	June.	May.
Hearings authorized	3	0
Prosecutions ordered	12	19
Dump applications approved	2	6
Dump applications disapproved	0	3
Offensive trades approved	1	0
Legal notices	292	398
Vacate notices	0	2
Forcible removals	3	0
Orders	1	0
Conferences	0	80
Personnel:		
Transfers	1	2
Promotions	0	3
Temporary	4	0
Provisional	4	1
Permanent	0	8
Retirements	0	0
Leave of absence	2	1
Official visits authorized,	1	0

LICENSES, PERMITS, ETC., ISSUED.

	June.	May.
Burial permits		1,148
Milk licenses	1,245	1,556
Beverage licenses granted,	1	0
Pedlers' licenses granted,	228	915
Hen licenses granted	238	110
Stable permit granted provisionally	2	0
Stable rights revoked	1	1
Stable rights refused	1	0
Stable permits extended temporarily	1	0
Poultry licenses granted,	1	0
Undertaker's licenses granted	155	0
Undertaking establishments authorized	1	0
Denatured alcohol licenses	11	235
Manicure-massage:		
Granted	755	92
Dumps	2	5

MEDICAL DIVISION.

HEALTH UNIT (Blossom Street).

	June.
Health Department Proper.	
Vaccinations	41
Vaccination certificates	53
Antitoxin, antityphoid, Schick toxin-antitoxin given	12
Children examined for camps and day nurseries	71
Visits by medical inspectors	61
Dental Service:	
Number of operations	259
Number of dismissals	32
Number of children treated,	210
Nutrition Service:	
Number of conferences	3
Conference attendance	26
Number of home visits	34
Nose and Throat Service:	
Number of conferences	2
Number of examinations	74
Adenoids and tonsils, operations recommended	44
Nurses' Visits:	
Communicable diseases	115
Babies	582
Children of pre-school age	223
Children of school age examined	50
Miscellaneous:	
Complaints of insanitary conditions	7
Information requests	300
Resident visitors	10
Non-resident visitors	5

	June.
Community Health Association.	
General:	
Home visits by nurses	1,005
Posture classes	8
Posture class attendance	49
Child Hygiene Division:	
Number of conferences	12
Conference attendance	440
New babies admitted	75
Home visits to babies	791
Home visits to children	57
Boston Dispensary:	
Calls by district physician	24
Boston Sanatorium:	
Calls by nurses in district	968
Jewish Welfare Center:	
Nutrition conferences:	
Number	1
Attendance	2
Nutrition Classes:	
Number	4
Attendance	71
State Department of Mental Diseases:	
Habit forming clinics	4
Attendance	28
Home visits	44

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, JUNE 1, 1924.

SYPHILIS.

Current cases under investigation June 1, 1924	23
New cases assigned during the month	23
Total	46

DISPOSITION OF CASES.

Located:	
Placed under treatment	7
Under treatment	1
Not Located:	
Search abandoned	17
Under investigation June 30, 1924	21
Total	46

GONORRHEA.

Current cases under investigation June 1, 1924	58
New cases assigned during the month	97
Total	155

DISPOSITION OF CASES.

Located:	
Under treatment	6
Placed under treatment	25
Further treatment unnecessary	0
Not Located:	
Search abandoned	34
Fraudulent use of name	0
Under investigation June 30, 1924	90
Total	155

SUMMARY.

Current cases under investigation June 1, 1924	81
New cases assigned during the month	120
Total	201

DISPOSITION OF CASES.

Located:	
Under treatment	7
Placed under treatment	32
Further treatment unnecessary	0
Not Located:	
Search abandoned	51
Fraudulent use of name	0
Under investigation June 30, 1924	111
Total	201

Form letters mailed to above patients	113
Form letters unclaimed returned from post office	21
Form letters accepted by patients	92

Venereal disease complaints	13
New cases	7
Under investigation June 1, 1924	6
Disposition of complaints:	
Placed under treatment	0
Unable to locate	5
No evidence of disease	3
Under investigation June 30, 1924	5
Visits by investigators	387

BUREAU OF COMMUNICABLE DISEASES.

	June.	May.		June.	May.
Visits:			Medical inspector's activities:		
By medical inspectors,	1,339	1,523	Schick tests	3,171	16,012
By veterinarian	233	249	Schick readings	5,855	16,162
By investigator	337	335	Toxin-antitoxin injections	3,871	8,311
By nurses	3,075	4,944	Vaccinations	54	669
Cases brought to Boston for treatment	93	110	Vaccination certificates	26	58
Deaths investigated	15	16	Antitoxin injections	3	34
Nurses' Schick activities,	12,897	40,485			

CHILD HYGIENE DIVISION.

	June.	May.
Total number of all visits	*3,461*	*4,314*
Visits to new cases	453	891
Visits to old cases	2,564	2,919
Ophthalmia cases:		
Visits by Child Hygiene Division	192	237
Visits by Health Unit	*19	*39
Infant mortality investigations	115	146
Maternal death investigations	137	121

* Not included in total number of all visits.

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	June.	May.
New reports	4,470	4,962
Stores inspected	4,904	5,646
Sanitary defects remedied	158	166
Complaints at office	14	34
Referred to Sanitary Division	19	28
Milk applications	162	214
Peddlers:		
Applications for licenses approved	230	200
Vehicles inspected and approved	573	621
Court cases	0	4
Convictions	0	4
Fines	0	$20
Laboratory Examinations:		
Bacteriological	1	2
Chemical	5	3

CONDEMNATIONS.

Requested.	
Onions	16,400 pounds
Spareribs	1 pound

Not Requested.	
Bacon	5 pounds
Beef	10½ pounds
Cabbage heads	10
Clams	1¼ pecks
Beans	2 cans
Beets	2 cans
Fish	34 pounds
Fowl	8 pounds
Frankforts	145 pounds
Haddock	100 pounds
Livers	4
Lobsters	9 pounds
Meat	30 pounds
Pineapples	108
Pluck	37
Pork	1,650 pounds
Raisins	75 pounds
Sauerkraut	24 cans
Salmon	50 pounds
Shoulders	5 pounds
Sweetbreads	45
Tonic	4 cases
Tonic	9 bottles
Tongue	5
Veal	763 pounds

LIVE STOCK INSPECTION (Brighton Abattoir).

	June.	May.		June.	May.
Cattle inspected	249	251	Sheep inspected	1	1
Calves inspected	1,953	2,742	Parts condemned	210	330
Swine inspected	3,803	4,232	Animals condemned	7	9

DAIRY DIVISION.

	June.	May.		June.	May.
Total inspections	1,148	1,503	Inspection of milk plants and licensed dealers	279	335
Dairies inspected	830	573	Bacteriological examinations		521
Scoring above 50 *	550	326	High bacterial counts investigated	4	15
Scoring below	280	247	Country creamery inspections	9	25
With milk rooms	556	341			
Without rooms	536	341			
Without milk rooms	294	232			
Inactive	26	34			
Total cattle inspected	10,101	7,405			

* Passable mark.

BUREAU OF MILK INSPECTION.

	June.	May.		June.	May.
Chemical inspection of:			Ice cream	47	68
Milk	1,283	1,594	Bottles	102	0
Vinegar	0	141	Caps	98	0
Butter	0	0	Rinse water	26	0
Miscellaneous	12	3	Court cases	32	29
Bacteriological examination of:			Fines	$590	$390
Milk	654	651			

SANITARY INSPECTION.

	June.	May.		June.	May.
Original inspections	1,623	1,976	Complaints	742	998
New reports	2,512	2,583	Vacate notices	0	2
Reinspections	6,236	8,361	Court cases	13	16
Legal notices served	313	323	Fines	0	$20

BACTERIOLOGICAL LABORATORY.

	June.	May.
Diphtheria	1,656	1,528
Tuberculosis	255	290
Typhoid	44	47
Gonorrhea	676	747
Gonorrheal ophthalmia	52	68
Syphilis	1,258	1,453
* Other examinations	* 39	17
Bacteriological examinations of milk	654	651
Bacteriological examinations of ice cream	47	68
Milk bottles examined	102	152
Milk bottle caps examined	98	116
Rinse waters examined	20	0

* Malaria, 7; genito-urinary tuberculosis, 2; feces for typhoid, 3; urine for typhoid, 3; dark field examinations, 6; virulence tests, 18.

MILK.

Keep milk clean, covered and cold.

Buy only the best milk obtainable. It is cheapest in the long run.

Consult the Health Department before selecting your milk dealer.

Buy only bottled milk. Other milk is often dirty and deficient in cream.

Take milk into the house as soon as it is delivered, and place it in the refrigerator immediately. Bacteria increase rapidly in milk which stands in the sun or warms up, and such milk will sour quickly.

Keep milk in the original bottle in the refrigerator until the moment of serving. Milk which has been poured from the bottle should not be returned to it.

Keep the bottle covered with a paper cap or an inverted tumbler, to prevent the entrance of flies or dust, which may carry dangerous bacteria into the milk.

Keep the refrigerator clean and sweet by means of proper drainage and frequent washing with scalding water and sal soda, since milk quickly absorbs unpleasant odors and becomes less palatable.

Wash milk bottles as soon as emptied, by rinsing first with lukewarm water and then with hot water. If there is an infectious disease in your house, do not return any bottles except with the knowledge of the Health Department, and under conditions which it may prescribe.

Return empty bottles promptly, and do not use them for anything except milk. Remember that they are the property of the dealer and represent cash.

VITAL STATISTICS, JUNE, 1924.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING JUNE, 1924, WITH COMPARATIVE FIGURES FOR JUNE, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
All Causes:						
Total deaths	846	842	+4	13.07	13.11	—.04
Nonresidents deducted	724	670	+54	11.18	10.44	+.74
By Age:						
Under one year	102	103	—1	1.57	1.60	—.03
One year to four years, inclusive	44	52	—8	.68	.81	—.13
Sixty years and over	301	280	+21	4.65	4.36	+.29
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	51	55	—4	.79	.86	—.07
Arteriosclerosis	34	28	+6	.52	.44	+.08
Heart disease	154	138	+16	2.38	2.15	+.23
Nephritis, chronic	39	51	—12	.65	.79	—.14
Infant and Maternal Mortality:						
a. Total registered live births	1,567	1,551	+16	24.21	24.16	+.05
b. Registered stillbirths	42	57	—15	.65	.89	—.24
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	26.10	35.45	—9.35
c. Deaths of mothers from causes incident to childbirth	20	10	+10	.31	.16	+.15
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	12.43	6.22	+.621
Deaths of children in first year of life	102	103	—1	1.57	1.60	—.03
Deaths in first year per 1,000 live births,	.....	.....	.....	65.09	66.41	—1.32
Violence:						
Accidents	41	51	—10	.63	.79	—.16
Homicides	3	2	+1	.05	.03	+.02
Suicides	5	7	—2	.08	.11	—.03
Miscellaneous:						
Alcoholism, acute or chronic	12	10	+2	.18	.15	+.03
Broncho-pneumonia	31	23	+8	.48	.36	+.12
Cancer	103	102	+1	1.59	1.59	—
Cirrhosis of the liver	8	4	+4	.12	.06	+.06
Diabetes mellitus	12	8	+4	.18	.12	+.06
Diarrheal diseases, children under two years of age	17	10	+7	.26	.15	+.11

		CASES AND DEATHS.					
		Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
		1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:							
Anterior poliomyelitis	Cases	1	1	—	.015	.015	—
	Deaths	—	—	—	—	—	—
Cerebro-spinal meningitis	Cases	6	3	+3	.09	.04	+.05
	Deaths	3	3	—	.05	.04	+.01
Diphtheria	Cases	225	250	—25	3.47	3.89	—.42
	Deaths	10	13	—3	1.15	.20	—.05
Influenza	Cases	5	—	+5	.08	—	+.08
	Deaths	2	—	+2	.03	—	+.03
Measles	Cases	455	786	—331	7.03	12.24	—5.21
	Deaths	455	4	—3	.015	.06	—.045
Pneumonia (lobar)	Cases	128	37	+91	1.98	.57	+1.41
	Deaths	29	34	—5	.45	.53	—.08
Scarlet fever	Cases	259	311	—52	4.00	4.84	—.84
	Deaths	3	2	+1	.05	.03	+.02
Tuberculosis (pulmonary)	Cases	162	160	+2	2.50	2.49	+.01
	Deaths	59	55	—4	.91	.86	+.05
Tuberculosis (other forms)	Cases	39	29	+10	.60	.45	+.15
	Deaths	6	10	—4	.09	.16	—.07
Typhoid fever	Cases	10	6	+4	.15	.09	+.06
	Deaths	1	—	+1	.015	—	+.015
Whooping cough	Cases	37	99	—62	.57	1.54	—.97
	Deaths	1	6	—5	.015	.09	+.075

The foregoing table include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1923 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, AUGUST, 1924. No. 8

COMMON COLDS.

During the middle of August the number of notifiable diseases reported by physicians to the Boston Health Department fell as low as ten or twelve cases a day. Two or three cases of measles, a case or two of diptheria, a case of dysentery and of scarlet fever and so on.

Last spring nearly fifty cases of measles were reported daily, and even then, probably only about 30 per cent of the cases of measles which were occurring daily were being reported.

In March the nose and throat specialists were working themselves to the point of physical exhaustion. During August they were away on vacations, taking needed rest except for those who were being called on by patients with the hang-overs of infections of the respiratory tract, dating from last winter and previous winters.

Some time during the autumn the number of communicable diseases reportable to the Health Department will begin to shoot upward and the nose and throat specialists will also be busy again. Whether this will happen early or late in the autumn will depend upon the kind of an autumn we are going to have. It will occur soon after weather comes which makes people close windows and start artificial heat, be that early or late.

The same conditions which promote the spread of diseases like measles, scarlet fever and diphtheria also serve to spread the infections of the respiratory tract, which we refer to as common colds. In scarlet fever or measles the infective agent is contained in secretions from the nose and throat. Such secretions serve to spread the infection, be it by droplets in the air, or through the medium of contaminated eating or drinking utensils, hands, handkerchiefs, or other soiled objects. Practically, the danger to others from an infected person is directly proportionate to the amount of secretion from the respiratory mucous membrane. Cold air in itself tends to stimulate such secretion, increasing its amount, and consequently possible danger to other persons. So also does anything which tends to irritate the respiratory mucous membrane whether it be the toxic products of the infective process itself or irritating qualities of the air which the person breathes. Weather conditions in themselves as well as the resulting crowding of people within a confined space and the artificial heating of air mixed with various impurities serve therefore to promote the spread of diseases like scarlet fever, diphtheria and measles as well as common colds.

In important practical respects, however, these two classes of infections differ. Even if susceptibility be universal, as appears to be true with such communicable diseases as smallpox, one instance of frank infection usually produces a permanent immunity. In diseases like diphtheria or scarlet fever a susceptible person may even develop lifelong immunity without recognizable infection. Apparently only a transitory immunity is ever produced with respect to the infective agents or organisms which produce the serious consequences or complications of common colds.

In another important respect these two classes of infections differ. The reportable diseases like diphtheria, scarlet fever, typhoid fever, measles and others, on which official health agencies spend so much energy and money are, all combined, of relatively little economic importance in comparison with the enormous economic loss from "common colds" and their complications. Every employer of labor must figure a considerable amount of absentism and a very definite annual loss of production from colds and their complications. The potential earning capacity and the income of most families in this city are materially reduced every year from this cause and often to a serious extent. Nor is the economic loss of the "common cold" ended with the return of an employee to his work. The practising physician and the pathologist trace the trail of the common cold in diseased sinuses or tonsils, in chronic focal infections, degenerative changes in internal organs and arteries, in impaired general health, steadily lessening earning capacity and in

premature death. No tropical country ever suffered greater economic losses from the yellow fever than we do from our winter colds.

The etiology of acute infections of the respiratory tract is not thoroughly understood. Perhaps also some of our supposed scientific knowledge of this subject rests too much on insecure bacteriological theories and hypotheses. But our practical knowledge of the subject is certainly comparable to the discovery some twenty-five years ago of the mosquito transmission of yellow fever which resulted in the eradication of yellow fever from former tropical hot beds of that disease.

It was known over a hundred years ago, that the proper cleaning of mess gear prevented the spread of colds on the naval ships of that time. It would even seem justifiable to infer from the old Hebrew sanitary code as set forth in Leviticus that this fact was also known to the ancient Egyptians. Some time back in remote antiquity, it was discovered, modern artificial experiments to the contrary notwithstanding, that a certain amount of reasonably clean normal atmosphere was essential to the maintenance of a normal human respiratory mucous membrane. At least a century ago it was discovered that in the interests of military efficiency it was desirable that soldiers should not occupy by day the same rooms in barracks which they did by night. So also, practical experience rather than theoretical reasons, led to the adoption in all European countries of 500 cubic feet as the minimum per capita air space for infantry soldiers in barracks dormitories. Coming down to more recent times, we have the constantly accumulating practical experience that modern steam heating with its production of a baked, dried out, irritating atmosphere in the home and office, is at least an important predisposing factor in bringing about our winter infections of the respiratory tract.

Practical experience of another sort as well as modern biological and bacteriological research furnish still further knowledge which may be applied to prevent disability and economic losses from common colds. Something may be accomplished in the way of immunizing individuals against infection by methods of vaccination which are now available but the resulting immunity, if it occurs at all, is too transitory to make the procedure practicable for general application. Perhaps of greater practical possibilities, however, is the evidence tending to show that whatever may be the initial infective agent of a cold, the organisms, including probably the streptococci or pneumococci, which are associated with and produce the dangerous complications of a cold are of themselves incapable of attacking successfully a normal mucous membrane. In other words, it would appear that these organisms are to be

feared only after the mucous membrane has been invaded by something like the measles virus, for example, which may successfully attack a normal mucous membrane, or after the mucous membrane has been rendered vulnerable by being devitalized by the dried-out gaseous mixture which one has to breathe in a steam-heated crowded room. A further indication that lack of moisture is one of the dangerous features of our modern steam-heated habitations is furnished by the experiments which show that the normal secretions of the nasal mucous membrane have pronounced antiseptic and bacteriacidal properties. Furthermore, this coincides with the practical clinical experience which indicates that the washing out of the nasal secretion is likely to predispose to an infection. It is for this reason that the nose and throat specialist deems it advisable to follow a nasal douching with injection of oil.

Yellow fever disappeared from the tropical cities because the knowledge which had been gained regarding the disease was applied to prevent it. The economic losses from common colds can only be lessened by actually utilizing the knowledge which we possess regarding the etiology of such infections.

The chart on page 189 showing sickness among Telephone Company employees is reproduced by permission of the New England Telephone and Telegraph Company.

SCARLET FEVER.

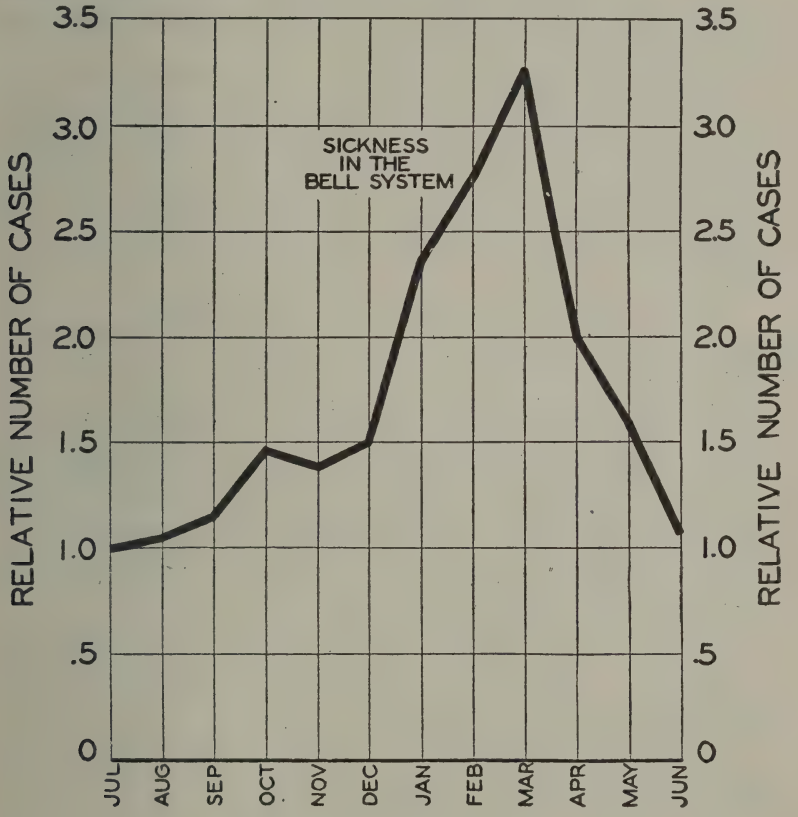
It is confidently to be expected that the discovery of the relationship to scarlet fever of a certain hemolytic streptococcus, the artificial production of a toxin and antitoxin therefrom and the development of the so-called Dick test will eventually give us a control over scarlet fever similar to that which we now have over diphtheria. The Dick test already seems to furnish us with a reliable means of determining immunity or susceptibility to scarlet fever.

It is evident, however, that considerably more investigation and experimenting must be done before an unqualified statement that we are able to control scarlet fever will be justifiable. "Dick testing" is now being done by the Boston Health Department as well as by various other municipal health departments, but perhaps the most extensive and notable work in this connection with testing and immunization is now being carried on by Park and Zingher of New York City. These and other investigators are making it apparent that we have a good deal to learn about scarlet fever and that scarlet fever and diphtheria are dissimilar in other respects than in the matter of having different causative organisms. The supposed scarlet fever toxin, the product of the hemolytic streptococcus now regarded as the cause of scarlet fever is curiously different in certain

attributes and in its behavior in various ways from the diphtheria toxin. Furthermore, the new impetus which has been given to the study of scarlet fever is bringing out curious inconsistencies which suggest the possibility that we may have to modify our clinical conception of scarlet fever itself. In fact, Zingher has gone so far as to declare that what is called scarlet fever is a "conglomeration of all kinds of diseases."

THE HILL OF SICKNESS.

Follow it by months. There are more than twice as many sickness cases in March as there are in December.



What Causes This Hill?

Winter months bring indoor life and artificial heat. Vitality gets lower and lower. We are then more susceptible to disease. The changeable weather of March causes us to take chances. This is the time when colds, tonsilitis, bronchitis, grippe, influenza, pneumonia attain their maximum prevalence. These are all diseases of the air passages and the breathing apparatus.

UNCLEAN SOFT DRINK ESTABLISHMENTS.

Boston's Health Department, in conducting a campaign against unclean soda fountains, enlists the active co-operation of every man, woman and child who patronizes a soda fountain or other place where beverages or food are sold.

The Health Department will proceed in every possible way, consistent with state laws, and local rules and regulations, to the end that persistent violations of the sanitary food laws may be summarily prosecuted.

The sanitary conditions at soda fountains and other places where beverages are sold are much better today than they were years ago and the present laws are adequate to cope with any unsanitary condition that may exist.

But it devolves upon each and every member of the public to be his or her own judge of whether or not a particular place is serving beverages or ice cream in a cleanly manner. The moral effect of discontinuing patronage of such places will be of great assistance to the Health Department in its great task of keeping them up to the high standards of the department and of the health laws in general.

In other words, demand the same relative standard of cleanliness in the place where you have your ice cream soda that you observe in your own home.

Don't stand at a respectful distance from a soda fountain and gracefully reach for the drink on the marble counter. Rub elbows with it and if necessary lean over the counter and look inside. If the sink is full of stagnant, dirty water or the automatic tumbler water visibly dirty, it is reasonably certain that your glass will not be clean. Refuse to be served. Watch the movements of the dispenser. See if his hands and clothing are clean. Watch the ice cream scoop. See if it is clean.

Look into the receptacle from which he takes it. If it is full of cold, cloudy water, possibly with scum on the surface, make known your objection and refuse to be served.

Any dirty place, especially in warm weather, invites the invisible germs that find it an ideal breeding place.

Patronizing a dirty place, you run the risk of taking into your system germs that may cause serious illness.

Verdigris is another possible danger. Taken into the system, it may cause gastric disturbance of one kind or another. Don't patronize a place where visible verdigris is in close proximity to food or drink. You may, unwittingly, eat or drink some of it.

The Health Department will continue its vigilance as it has always in the past, but the public must do its share.

EXAMINATION AND CONDEMNATION OF RIPE OLIVES.

Upon receipt of a report of outbreaks of botulism following the eating of ripe olives at Cody, Wyoming, and at Coalinga, Cal., the department immediately started co-operative work with the United States Department of Agriculture. The olives specially in question were Ehmann's olives which had been used at Cody, and Van Camp Sea Food Company olives which has been used in California. The inquiry here covered these and other brands of California ripe olives. Following is a list of places in this city which were covered, with results:

Van Camp Sea Food Company, Bowker street, Warehouse. — Six hundred and seventy-two cans Van Camp 1 pound 1 ounce; 1,160 cans Van Camp 1 pound 2 ounces. In the lot of 1,160 the swells and springers ran about 7 per cent. All the above cans were destroyed and dumped at Southampton street.

Contas Brothers, 271 North street.— Four cases of No. 10 Royal Scarlet, with ten swells; lot held; four cases of Lindsay, O. K. Released.

Booras Brothers, 235 North street.— Eighteen cases Royal Scarlet, with fifteen swells, one rusty, one leaker; lot held; 16 cans Royal Scarlet No. 10, O. K. Released.

Calamata Grocery Company, 225 North street.— Two cases Curtis No. 10; eighteen cases of Monte Vista No. 1 and one case of Monte Vista No. 10. Lot released.

One Rialto No. 10, rusty, 3 Hillsdele No. 10, rusty.

G. Torrielli, 132 North street. — Six cases Lindsay No. 10, O. K; seven Royal Scarlet No. 10, swell; seven Lindsay No. 10, rusty. Lot released.

Alberti Importing Company, Fulton street.— Held up Lindsay No. 1; 125 cases averaging better than 1 per cent, swells. Found thirty-two cans No. 1, Lindsay, three Monte Vista No. 10, and two Olivedale No. 10, swells, which will be picked up by the United States inspector. Released the rest.

Dagnino, Fulton street.— Sixty-three cases Grogan No. 10, O. K; eighteen cases Grogan No. 1, O. K.; eight cases Curaco No. 10, 1 swell. Released all.

Aeolian Importing Company, Fulton street.— One hundred cases San Juan No. 10, O. K., released; eighteen cases San Juan 7 ounce, O. K., released; five cases Lindsay No. 1, four swells, hold lot.

L. LaConte, Ferry street.— Nine cases Curtis, O. K.; five cases Monte Vista, O. K.; one swell and 1 leaker, M. V. Released all.

Scaramelli, 145 Fulton street.— 209 cases California No. 10; Mt. Ida Packing, O. K.; one case Curoco No. 10, O. K.; seventy-four cases California No. 1, O. K.; 28 cases Olivedale No. 1, O. K. All released.

A. Cardinelli, 123 North street.— One and one-half cases 5 ounce Laoga brand, two swells. Released.

Two cases Monte Vista No. 1, released. Five cases Van Camp No. 10, 9 swells, "held."

Union Importing Company, 129.— 250 cases Grogan; fifty cases Monte Vista; ten cases Golden State; Lindsay.

New England Grocery Company, 117 Fulton street.— 110 cases Van Camp No. 10; two cans Royal Scarlet; twelve cans Rialto No. 10, Curtis, Long Beach; Doctor Holton took three cans (one leaker and two swells); hold remainder.

Joseph Labriola, 109 Richmond street.— One case Van Camp No. 9; 42 cans Van Camp No. 10.

Re Brothers, 147 Fulton street.— 144 cases Van Camp No. 10.

Sample cans of these packs were submitted to the bacteriologist for presence of B Botulinus or other pathogenic organisms, and negative reports received. The investigation has been completed and everything released.

NUMBER OF DEATHS.

Deaths from Certain Diseases for First Twenty-six Weeks (one-half of year) for the Last Seven Calender Years.

	1924.	1923.	1922.	1921.	1920:	1919.	1918.
Total deaths, all causes	5,879	6,681	6,052	5,435	6,848	7,072	6,959
Under one year of age	767	933	844	799	1,099	984	1,044
Over one year and under five years	307	376	320	333	521	433	587
Over sixty years of age	2,132	2,503	2,222	1,967	2,173	2,042	2,087
Broncho-pneumonia	342	483	389	276	497	278	—
Lobar pneumonia	312	490	430	325	502	466	1,138*
Diphtheria	116	92	63	83	85	83	136
Scarlet fever	34	41	30	47	49	22	22
Whooping cough	7	103	11	28	110	21	79
Tuberculosis, pulmonary	351	372	394	401	503	538	671
Typhoid fever	7	3	2	9	4	8	6

* Broncho and lobar together.

The figures presented in the above report are interesting because they show in almost every instance a lower mortality in comparison with the same period in previous years, and in most instances mark a new low record. Of course, two of the most encouraging comparisons are deaths of infants under one year of age and deaths from pulmonary tuberculosis, which are lower than any other time in the previous history of the city. The number of deaths from whooping cough thus far this year are amazingly low, especially when contrasted with the high figure of 1923.

It is hoped that the parents in the City of Boston will note the large number of deaths from diphtheria. This in itself justifies the intensive diphtheria campaign that this department has been waging for the past two years, especially when we realize and understand that of the 116 deaths from diphtheria thus far this year not one had been protected by means of the toxin-antitoxin imnunization. As a matter of fact, nearly 5,000 cases of diphtheria have been

reported to this department since December 1, 1922, and not one of these cases has been protected by the procedure provided by the Health Department.

FLIES.

Flies are one of the worst enemies of man. They breed prolifically and prosper in filth. Their conformation is admirably suited for carrying death-dealing organisms from questionable places which they frequent, to the dwelling places, food utensils, and food of man. Flies are a nuisance and anyone who fights them is doing humanity a service.

The female fly is not fastidious about the place in which her offspring are to be born. A manure pile represents the height of her ambition in this respect, and when she has the opportunity she deposits her eggs there in masses. The manure pile reciprocates by acting as an incubator for her young, and in a few days the maggots which hatch from her eggs have developed into full-fledged flies, all ready to start on a campaign of destruction and perhaps death.

The fly is covered with a hairy growth and its feet resemble hairy pads. It probably carries as much filth and as many bacteria on its body, for its size, as anything which lives. No wonder, then, considering this point alone, that the fly is an enemy of milk. But this is not all, for the fly is a creature of filthy practices. It sucks its food without fear or favor and then regurgitates it at will. A smooth-surfaced milk utensil may be a handy place for this procedure.

The fly scatters its excreta promiscuously. Its specks may be found on any place it frequents. They look unsightly, but are even worse than they look, because they often contain organisms which are decidedly detrimental to health. Is it any wonder that we are besought and urged to "swat the fly"?

No one is more alive to the danger from flies than the milk inspector. His training and his ambition both call for the destruction of this enemy of clean, safe milk. But sometimes he forgets that not all of the producers are familiar with the characteristics and habits of the fly. He thus overlooks an opportunity. He should explain to his dairyman and also to the people who consume the milk *why* there should be adequate protection from flies. When a full explanation is made to the dairymen about the fly and its habits, he becomes interested in getting rid of manure piles, trash, and other breeding places, and in trapping and poisoning the flies which appear.

The inspector who studies the fly menace and teaches control methods to those concerned, may justly feel that his time is well spent. (U. S. D. A.)

RESULTS ATTAINED THROUGH COMPLIANCE WITH ARTICLE XII OF MILK REGULATIONS.

On March 7, the Milk Regulations were amended by the addition of Article 12, calling for milk from federal accredited herds or tested herds on the way to accreditation, under Federal supervision. The balance of the milk was pasteurized, and the bacterial standard was reduced to 100,000 bacteria per cubic centimeter instead of 500,000. While the dealers were notified of this amendment in March, the real start was made in December, 1923. A survey of the dealers selling raw milk was made as to their testing their herds or pasteurizing. At this time thirty-one licensed dealers were selling approximately 17,000 quarts of raw milk, three of the thirty-one were selling certified and the herds of four others were already accredited.

Very early in the game six dealers had herds tested, eighty-five cows passed the test and sixty-six reacted. By March 15 many applications for tests were made and six dealers ordered pasteurizing outfits. Herds were tested until the government appropriation was exhausted, all but four herds were tested and they were compelled to wait until June for the new appropriation. By June 1 pasteurizing outfits were installed in four plants. Seventeen herds had been tested and three dealers installing outfits were held up by the inability of dairy supply houses to ship all equipment. By July 15 all herds had been tested and all outfits installed and in operation. Twenty herds were tested. Two hundred and seventeen reactors were found and 206 cows passed the test, showing 51.3 per cent reactors for the first test. The seven dealers pasteurizing and two buying part of their supply pasteurized show a change of over 3,000 quarts raw to pasteurized. Boston's milk supply is now 96.72 per cent pasteurized.

BOSTON TO TAKE OVER BABY HYGIENE ACTIVITIES.

Community Health Association, Performing Notable and Appreciative Charity Work in Need of Aid.

The Community Health Association of Boston, which has been conducting district nursing, baby hygiene, mental hygiene, prenatal and preschool work during the past thrity-eight years, have submitted a request in effect that the City of Boston through its Health Department conduct the baby hygiene activities after September 1, 1924, in Charlestown, East Boston, North End, South End and West End Districts.

This work, which has been conducted by the Community Health Association for upwards of a quarter of a century and which has been

such a contributing factor to the conservation of the health of the public generally, has been supported by voluntary contributions which of late have not been received in the volume anticipated and as a consequence the submission of the request.

The annual cost of conducting baby hygiene activities in the five districts enumerated, namely, Charlestown, East Boston, North End, South End and West End Districts, is appoximately $5,000 annually, but in view of the fact that it is customary in some of the other American cities for municipalities to conduct these activities the city gladly assumes the expenditure entailed for the conduct of these activities and after September 1 the baby hygiene activities in the districts, Charlestown, East Boston, North End, South End and West End, will be conducted under the direction of the Boston Health Department.

His Honor the Mayor expresses the sincere appreciation of the people of Boston for the painstaking and unselfish character of service rendered by the Community Health Association and more particularly to the officials in charge who have been both self-sacrificing and hard working:

President, Mr. William Arthur Dupee.

Vice Presidents, Mrs. Robert L. DeNormandie, Mr. Malcolm Donald.

Secretary, Mrs. Morton F. Prince.

Treasurer, Mr. Ingersoll Bowditch.

General Director, Mary Beard, R. N.

Director Nursing, Florence Patterson, R. N.

Medical Director, Director Child Hygiene, Robert D. Curtis, M. D.

Director Vital Statistics, Mae Chapin, R. N.

MAYOR MOVES TO TAKE OVER BABY HYGIENE WORK.

Mayor Curley on August 11 sent the following communication to the City Council:

GENTLEMEN,— The Community Health Association of Boston, a private organization supported by public contributions, has been interested in the work of district nursing, baby hygiene, mental hygiene, prenatal and preschool work for a period of thirty-eight years.

The Community Health Association of late have been experiencing the same difficulty that has confronted similar organizations in the matter of the raising of funds for the conduct of the particular activities in which they are interested.

The situation has become so acute that they have served notice that they desire the City of Boston to conduct the baby hygiene activities after September 1, 1924, in the following districts: Charlestown, East Boston, North End, South End and West End. The conduct of the baby hygiene activities in these districts will represent an increased expenditure by the Boston Health Department of $25,000 for the remainder of the fiscal year. This work in my opinion, should be conducted by the City of Boston direct, through its Health Department, and in all probability unless the philanthropic impulse of those who have aided in the past is supplemented by financial aid the City of Boston will be required to conduct similar activities in every section of the city.

Under the circumstances it becomes the duty of the city to provide the necessary money and I accordingly recommend the adoption of the accompanying order, the adoption of which will provide sufficient funds for the conduct of these activities from September 1, 1924, to February 1, 1925.

Respectfully,

JAMES M. CURLEY, *Mayor.*

The City Council at its meeting August 11 provided $18,772.59 to cover the cost of the work mentioned, and the Health Commissioner has arranged to assume the work after September 1, 1924.

ATHLETICS FOR WOMEN.

Since girls have taken to the athletic field with increasing interest and have indulged in those sports which have been looked upon for centuries as belonging to the province of the male only; adults of both sexes have felt grave concern lest harm should follow this breaking away from old traditions and customs. We are by no means certain that athletics, as participated in by boys and men in this country, are always conducive to good, even if they do little harm; and naturally those who have the welfare of the young at heart, and especially those who are directly reponsible for them, should be deeply concerned as to how far girls should go in competitive games.

The attitude of the American boy toward the outcome of athletic contests is not always characterized by the sanity that could be wished for and which is shown by participants in games in some other countries. Partly, no doubt, from imitation of this attitude, and partly because competitive athletics are for them a new and especially exciting form of adventure, women have entered

into these sports with an intensity which has added to the fear for their welfare under such circumstances.

The entry of women into athletics has not been peculiar to this country, and the same concern for them has been felt abroad. In 1921 a committee was formed in England for the study of the problem, under the chairmanship of the distinguished pediatrician, Doctor Still, and consisting of representatives of the College of Physicians and Surgeons, the British Association for Physical Training, the Ling Association, the National Union of Women Teachers, and other educational organizations. A questionnaire was sent out to those who were believed to have a special knowledge of the subject, including physicians, school principals, and women students. In the returns from this questionnaire there was approval of games in general as beneficial not only to the health of girls, but to disposition and character as reflections of health. Tennis, net ball, and lacrosse received general approval. Hockey, though approved by the majority of teachers and students, was regarded by some as suitable only for the older and stronger girls. Cricket was generally approved as not injurious, but football was generally disapproved as entailing too great a strain. Swimming and rowing, in moderation, were approved, but rowing races were condemned and ill effects were recorded. The physicians considered that games and sports were generally as beneficial to girls as to boys.

In America the study of this problem is now being taken up on a national scale. In April, 1923, a group of 200 leaders in physical activities for women and girls gathered in Washington at the suggestion of the National Amateur Athletic Federation of America, and under the leadership of Mrs. Herbert Hoover to discuss prolems of women's athletics. As a result of the deliberations of this conference, there was formed the Women's Division of the National Amateur Athletic Federation. With Mrs. Hoover as its chairman, and an executive committee composed of experts in the field of physical education for women and girls, it was created as a special organization of women to take charge of the special problems of athletics for women and girls.

At this meeting important resolutions were drawn up and adopted. They express for the first time in a national way the ideals for which it is desirable to strive in women's and girls' athletics, and they will serve as a valuable and cautious guide to the many heads of schools and others who must make decisions as to the participation of girls in school sports. The United States Bureau of Education is glad to be of service in bringing these resolutions to the attention of a much larger number of educators than they have reached.— *Dr. J. F. Rogers, United States Department Interior.*

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during July. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands In One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.10	3.45	25
Anderson, Oscar A.	12.12	3.60	94
Antetomasso, Peter	12.29	3.70	20
Barry, Michael F.	12.14	3.60	102
Barron, Clarence W.	14.03	4.82	13
Bemis, Henry E., Company	12.53	3.71	1,026
Bergmann, John H.	12.40	3.73	50
Bolio, Mary J.	12.90	4.15	9
Bowditch estate, E. F.	11.78	3.41	8
Brandley, P. J. & T. J.	12.54	3.80	62
Burns, James	12.18	3.57	21
Buxton, William	12.91	4.18	5
Casey, James D.	13.40	4.31	34
Cashin, James F.	12.25	3.63	264
Cedar Hill Farm, Inc.	12.62	3.95	16
Chapin, George L.	12.13	3.61	16
Childs Brothers	12.33	3.65	63
Clapp, Frank L.	12.18	3.65	38
Clark, Levi	11.90	3.48	15
Cohen, Benjamin	12.88	4.10	102
Corkery, John H.	11.99	3.56	77
Cosgrove & Holland	12.24	3.61	76
Crowell, Raymond	12.17	3.65	104
Cummings, F. S., Company	12.08	3.58	21
Cunningham, Paul	12.92	3.91	30
Cusick, William F.	12.06	3.51	401
Deerfoot Farm Milk Company	12.36	3.73	16
Denehy, Timothy	12.12	3.50	56
Driscoll, William B., Company	12.62	3.75	20
Edgerly, Frank L.	12.28	3.70	67
Elm Spring Farm Milk Company	11.92	3.50	64
English, John, & Son	12.10	3.45	184
Ferguson, Malcolm D.	12.44	3.58	32
Floyd Milk Company	12.10	3.61	45

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands In One Cubic Centimeter.
	Per Cent.	Per Cent.	
Fortune & Allen	12.58	3.71	113
Garfield, Mason	14.40	4.60	4
Garvin, Charles E.	13.37	4.75	13
Giroux, J. E. & H. S.	12.02	3.55	124
Griffin Brothers	12.49	3.75	24
Griffin, Joseph L.	12.58	3.66	18
Gushee, W. S. & C. W.	12.16	3.50	14
Hagar, J. M., & Co.	12.35	3.57	42
Hancock, T. G., Company	12.36	3.73	62
Herlihy Brothers	12.23	3.66	81
Hickey, Martin J.	12.24	3.58	26
Holden, John E.	12.42	3.70	25
Hood, H. P., & Sons, Inc.	12.18	3.65	50
Jones, William T., Company	12.44	3.81	32
Kendall Brothers Company	12.05	3.51	72
Kennedy, Robert, Jr.	12.66	3.80	112
Kingston, Samuel	12.98	4.15	15
Klawa & Freeman	12.18	3.60	49
Knapp, George J.	12.40	3.50	16
Lang, Michael J.	12.28	3.51	42
Larkin, Patrick	14.10	4.70	88
Larsson, Charles	12.24	3.55	15
Lincoln Farms Milk Company	13.02	3.90	8
Lydonville Creamery Association	12.26	3.45	684
Manning, Peter E.	11.57	3.17	72
Maple Farm Milk Company of Massachusetts	12.30	3.78	129
McAdams, John F.	12.10	3.55	59
McGilvray, Charles D.	13.01	4.35	44
McKernan, John F.	12.37	3.56	23
Moore, Peter	12.61	3.76	189
Morgan, George D.	13.64	5.46	130
Munchbach George	12.32	3.58	33
Newton & Pope	12.31	3.55	70
Noble, William F., & Sons	12.29	3.65	38
Rautenberg, Otto G.	12.69	3.61	28
Raycraft, Benjamin F.	12.38	3.78	28
Robinson, Albert J.	12.60	3.76	35
Robinson, James A.	12.46	3.75	25
Runkle, John C.	13.00	4.15	116
Schuste, Adam J.	12.04	3.46	25

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands In One Cubic Centimeter.
	Per Cent.	Per Cent.	
Seven Oaks Dairy Company	12.06	3.57	148
Shick, Jacob	12.46	3.61	221
Somerset Farms	13.15	4.16	15
Sterling Farm Milk Company	12.49	3.63	20
Stone, Howard L.	12.00	3.45	228
Stuart, Wallis E.	12.40	3.53	30
Sullivan, John D.	12.27	3.56	41
Sullivan, John L.	12.97	4.13	25
Turner Centre System, Inc.	12.26	3.62	18
Vartanian, Gazer	12.05	3.60	28
Vartanian, Setrag	12.05	3.57	77
Walker-Gordon Laboratory Company	12.80	3.88	13
Ware, George H.	12.33	3.70	18
Weiler, E., & Sons	12.48	3.68	36
Werner, F., Company	11.99	3.50	105
Westwood Farm Milk Company	12.11	3.51	13
White Brothers	12.34	3.70	14
Whiting Milk Companies	12.15	3.55	59
Whittemore, Warner D.	12.48	3.73	17
Wiswall, Granville A.	12.30	3.53	360
Wittenberg & Recks	12.09	3.65	110
Woodland, Charles L.	12.06	3.45	71

CHAIN STORES MILK.

Name of Dealer.	Supplied by.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.17	3.63	89
The Cloverdale Company	Turner Centre System, Inc.,	12.52	3.78	16
John T. Connor Company	Bellow Falls Co-operative Creamery Company.	12.60	3.90	14
Co-operative Grocery Company,	J. M. Hagar & Sons	12.45	3.65	56
Economy Grocery Company	Whiting Milk Companies	12.23	3.55	112
First National Stores, Ltd.	United Farmers' Co-operative Creamery Association and Whiting Milk Companies.	12.73	4.01	52
Morgan Brothers Company	Whiting Milk Companies	12.60	3.83	51
M. O'Keeffe, Inc	J. M. Hagar & Sons	12.36	3.60	31
Rose Tea Company	Whiting Milk Companies	12.14	3.51	28
M. Winer & Co	Hyman Winer	12.25	3.57	322

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING JULY, 1924.

Classification.	Number.	Percentage.
	July.	July.
After death	7	11.87
Seven days or less	5	8.47
Eight to fourteen days, inclusive	2	3.39
Fifteen to twenty-one days, inclusive	1	1.69
Twenty-two to thirty-one days, inclusive	3	5.08
Within First Month	18	30.50
Within second month	6	10.17
Within third month	5	8.47
Within fourth month	4	6.78
Within fifth month	3	5.08
Within sixth month	2	3.39
Within seventh month	1	1.69
Within eighth month	0	—
Within ninth month	0	—
Within tenth month	1	1.69
Within eleventh month	0	—
Within twelfth month	1	1.69
Within First Year Preceding Death	41	69.46
Within second year	7	11.87
Within third year	1	1.69
More than three years	10	16.95
Totals	59	99.97

SUMMARY OF THE WORK, JULY 1, 1924.

BUREAU OF ADMINISTRATION.

	July.	June.		July.	June.
Hearings authorized	3	3	Conferences	9	7
Prosecutions ordered	15	12	Personnel:		
Dump applications approved	0	2	Transfers	1	1
Dump applications disapproved	1	0	Promotions	1	0
Offensive trades approved	1	1	Temporary	1	4
Legal notices	312	292	Provisional	2	4
Forcible removals	2	3	Permanent	1	0
Orders	1	1	Resignation	1	0
			Leave of absence	1	2
			Official visits authorized,	1	1

LICENSES, PERMITS, ETC., ISSUED.

	July.	June.
Burial permits	904	1,006
Milk licenses	218	1,245
Beverage licenses granted,	48	1
Pedlers' licenses granted,	171	228
Hen licenses granted	85	238
Stable permit granted provisionally	2	2
Stable rights revoked	0	1
Stable rights refused	0	1
Stable permits extended temporarily	0	1
Poultry licenses granted,	0	1
Undertakers' licenses granted	2	155
Undertaking establishments authorized	2	1
Denatured alcohol licenses	12	11
Beverage licenses granted,	47	
Manicure-massage: Granted	162	755
Dumps	2	2
Lying-In Hospitals licensed	1	0

MEDICAL DIVISION.

HEALTH UNIT (Blossom Street).

HEALTH DEPARTMENT PROPER.	July.
Vaccinations	35
Vaccination certificates	10
Antitoxin, antityphoid, Schick toxin-antitoxin given	6
Children examined for camps and day nurseries	118
Visits by medical inspectors	48
Dental Service:	
Number of operations	264
Number of dismissals	38
Number of children treated,	157
Nutrition Service:	
Number of conferences	5
Conference attendance	37
Number of home visits	74
Nose and Throat Service:	
Number of conferences	1
Number of examinations	11
Adenoids and tonsils, operations recommended	0
Nurses' Visits:	
Communicable diseases	88
Babies	459
Children of pre-school age	15
Children of school age examined	0
Miscellaneous:	
Complaints of insanitary conditions	9
Information requests	255
Resident visitors	10
Non-resident visitors	8

COMMUNITY HEALTH ASSOCIATION.	July.
General:	
Home visits by nurses	1,018
Posture classes	0
Posture class attendance	0
Child Hygiene Division:	
Number of conferences	15
Conference attendance	608
New babies admitted	55
Home visits to babies	557
Home visits to children	0
BOSTON DISPENSARY:	
Calls by district physician	27
BOSTON SANATORIUM:	
Calls by nurses in district	869
STATE DEPARTMENT OF MENTAL DISEASES:	
Habit forming clinics	3
Attendance	10
Home visits	61

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, JULY 1, 1924.

SYPHILIS.

Current cases under investigation July 1, 1924	21
New cases assigned during the month	16
Total	37

DISPOSITION OF CASES.

Located:	
Placed under treatment	–
Under treatment	5
Not Located:	
Search abandoned	5
Under investigation July 31, 1924	27
Total	37

GONORRHEA.

Current cases under investigation July 1, 1924	90
New cases assigned during the month	71
Total	161

DISPOSITION OF CASES.

Located:	
Under treatment	11
Placed under treatment	18
Further treatment unnecessary	1
Not Located:	
Search abandoned	38
Fraudulent use of name	0
Under investigation July 31, 1924	93
Total	161

SUMMARY.

Current cases under investigation July 1, 1924	111
New cases assigned during the month	87
Total	198

DISPOSITION OF CASES.

Located:	
Under treatment	11
Placed under treatment	23
Further treatment unnecessary	1
Not Located:	
Search abandoned	43
Fraudulent use of name	0
Under investigation July 31, 1924	120
Total	198
Form letters mailed to above patients	83
Form letters unclaimed returned from post office	35
Form letters accepted by patients	48

Venereal disease complaints	0
New cases	11
Under investigation July 1, 1924	5
Disposition of complaints:	
Placed under treatment	1
Unable to locate	5
No evidence of disease	1
Under investigation July 31, 1924	9
Visits by investigators	224

BUREAU OF COMMUNICABLE DISEASES.

	July.	June.
Visits:		
By medical inspectors,	741	1,339
By veterinarian	63	233
By investigator	169	337
By nurses	20,386	3,075
Cases brought to Boston for treatment	36	93
Deaths investigated	27	15
Nurses' Schick activities,	629	12,897

	July.	June.
Medical inspector's activities:		
Schick tests	2	3,171
Schick readings	1	5,855
Toxin-antitoxin infections	626	3,871
Vaccinations	30	54
Vaccination certificates	7	26
Antitoxin injections	10	3

CHILD HYGIENE DIVISION.

	July.	June.
Total number of all visits	*4,325*	*3,461*
Visits to new cases	776	453
Visits to old cases	3,149	2,564
Ophthalmia cases:		
Visits by Child Hygiene Division	207	192
Visits by Health Unit	12	* 19
Infant mortality investigations	106	115
Maternal death investigations	87	137
Number of children examined for camp	320	

* Not included in total number of visits.

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	July.	June.
New reports	3,700	4,470
Stores inspected	4,211	4,904
Sanitary defects remedied	167	158
Complaints at office	57	14
Referred to Sanitary Division	17	19
Milk applications	127	162
Peddlers:		
Applications for licenses approved	189	230
Vehicles inspected and approved	666	573
Court cases	1	0
Convictions	1	0
Fines	$10	0
Laboratory Examinations:		
Bacteriological	9	1
Chemical	8	5

CONDEMNATIONS.

Beef	199 pounds	Tongue	1
Cucumbers	10 baskets	Trimmings	9 pounds
Bread	4 loaves	Tripe	22 pounds
Candy	25 pounds	Veal	2,963 pounds
Chicken	12 pounds	Milk	12 quarts
Evaporated milk	394 cans	Nuco butter and sterine	5,477 pounds
Fowl	27 pounds	Pigs tails	20 pounds
Frog legs	38 pounds	Potatoes	1 peck
Frankfurts	40 pounds	Olives	1,832 cans
Heads lettuce	2	Apples	10 dozen
Ice cream cones	22	Bananas	6 dozen
Livers	21	Figs	8 packages
Kidneys	24 pounds	Oranges	10 dozen
Lamb	145 pounds	Tomatoes	5 pounds
Plucks	26 pounds	Peaches	6 cans
Poultry	195 pounds	Pineapples	6 cans
Sweetbreads	91		

LIVE STOCK INSPECTION (Brighton Abattoir).

	July.	June.		July.	June.
Cattle inspected	260	249	Sheep inspected	7	1
Calves inspected	2,011	1,953	Parts condemned	195	210
Swine inspected	3,971	3,803	Animals condemned	6	7

DAIRY DIVISION.

	July.	June.		July.	June.
Total inspections	1,194	1,148	Inspection of milk plants and licensed dealers	401	270
Dairies inspected	528	830	Bacteriological examinations	229	0
Scoring above 50 *	420	550	High bacterial counts investigated	9	4
Scoring below	108	280	Country creamery inspections	16	9
With milk rooms	426	536			
Without rooms	0	536			
Without milk rooms	102	294			
Inactive	11	26			
Total cattle inspected	7,701	10,101			

* Passable mark.

BUREAU OF MILK INSPECTION.

	July.	June.		July.	June.
Chemical inspection of:			Ice cream	102	47
Milk	1,854	1,283	Bottles	243	102
Vinegar	72	0	Caps	0	98
Meat	6	0	Rinse water	0	26
Miscellaneous	0	12	Court cases	22	32
Bacteriological examination of:			Fines	$460	$590
Milk	511	654			

SANITARY INSPECTION.

	July.	June.		July.	Juue.
Original inspections	1,945	1,623	Complaints	936	742
New reports	3,000	2,512	Vacate notices	0	0
Reinspections	7,396	6,236	Court cases	9	13
Legal notices served	279	313	Fines	$77	0

BACTERIOLOGICAL LABORATORY.

	July.	June.
Diphtheria	891	1,656
Tuberculosis	266	255
Typhoid	75	44
Gonorrhea	665	676
Gonorrheal ophthalmia	52	52
Syphilis	1,307	1,258
* Other examinations	* 64	39
Bacteriological examinations of milk	511	654
Bacteriological examinations of ice cream	102	47
Milk bottles examined	0	102
Milk bottle caps examined	0	98
Rinse waters examined	0	20

* Malaria, 17; genito-urinary tuberculosis, 4; feces for typhoid, 6; urine for typhoid, 6; dark field examinations, 7; virulence tests, 1; paratyphoids, 4; hamburg steak for toxins, 1; smears for Vincent's, 1; tonic for pollution, 14; rabbit for rabies, 1; olives for botulism, 20.

DIPHTHERIA PREVENTION.

In view of the existing knowledge of diphtheria and its prevention, the continuance of the prevailing death rate from this disease can only mean that the knowledge is not put to use.

In diphtheria prevention we must bear constantly in mind the greater fatality of diphtheria in children under school age than after they are old enough to go to school. The disease is nearly twice as fatal under school age as it is after. This is illustrated by the following table. Figures are given in round numbers for the year 1923 for Massachusetts.

	Population, Per Cent.	Cases, Per Cent.	Deaths, Per Cent.
Under school age	10	30	60
School age	20	50	35

Children one year of age are practically all susceptible and the disease is very fatal if contracted.

This is why we are justified in immunizing children under school age without testing susceptibility with the Schick test.

A recent address by Professor Winslow of Yale University, widely misquoted in the newspapers, was not intended to convey the impression that we should omit the Schick test in children of school age, but merely that it may be omitted with the younger groups. This statement as quoted failed entirely to include a second recommendation made in conjunction with it relative to general immunization, as is well shown by the following language Professor Winslow later used. In a letter to the Boston *Herald* of May 13 he says, "I therefore advocated the general immunization of all children at the age of one year with toxin-antitoxin, but those who have not thus been protected should certainly be Schick tested and immunized as promptly as possible after they enter school." (Mass. State Dept. of Health.)

VITAL STATISTICS, JULY, 1924.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING JULY, 1924, WITH COMPARATIVE FIGURES FOR JULY, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
All Causes:						
Total deaths	767	694	+73	11.85	10.80	+1.05
Nonresidents deducted	627	554	+73	9.69	8.63	+1.06
By Age:						
Under one year	103	95	+8	1.59	1.48	+.11
One year to four years, inclusive	42	52	—10	.65	.81	—.16
Sixty years and over	274	243	+31	4.23	3.78	+.45
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	46	44	+2	.71	.68	+.03
Arteriosclerosis	26	26	—	.40	.40	—
Heart disease	99	97	+2	1.53	1.51	+.02
Nephritis, chronic	51	31	+20	.79	.48	+.31
Infant and Maternal Mortality:						
a. Total registered live births	1,725	1,550	+175	26.65	24.14	+2.51
b. Registered stillbirths	59	34	+25	.91	.53	+.38
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	33.07	21.46	+11.61
c. Deaths of mothers from causes incident to childbirth	13	8	+5	.20	.12	+.08
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	7.29	5.05	+2.24
Deaths of children in first year of life	103	95	+8	1.59	1.48	+.11
Deaths in first year per 1,000 live births,	.....	.....	.....	59.71	61.29	—1.58
Violence:						
Accidents	47	42	+5	.73	.65	+.08
Homicides	1	1	—	.015	.015	—
Suicides	4	6	—2	.06	.09	—.03
Miscellaneous:						
Alcoholism, acute or chronic	13	9	+4	.20	.14	+.06
Broncho-pneumonia	18	20	—2	.28	.31	—.03
Cancer	101	79	+22	1.56	1.23	+.33
Cirrhosis of the liver	6	2	+4	.09	.03	+.06
Diabetes mellitus	13	8	+5	.20	.12	+.08
Diarrheal diseases, children under two years of age	16	6	+10	.25	.09	+.16

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases..	6	1	+5	.09	.015	+.07
Deaths.	—	1	—1	—	.015	—.015
Cerebro-spinal meningitis.....Cases..	4	5	—1	.06	.08	—.02
Deaths.	3	3	—	.05	.05	—
Diphtheria.....Cases..	143	216	—73	2.21	3.36	—1.15
Deaths.	12	9	+3	.18	.14	+.04
Influenza.....Cases..	5	2	+3	.08	.03	+.05
Deaths.	1	—	+1	.015	—	+.015
Measles.....Cases..	125	228	—103	1.93	3.55	—1.62
Deaths.	1	6	—5	.015	.09	—.07
Pneumonia (lobar).....Cases..	44	35	+9	.68	.54	+.14
Deaths.	18	15	+3	.28	.23	+.05
Scarlet fever.....Cases..	95	118	—23	1.47	1.84	—.37
Deaths.	4	6	—2	.06	.09	—.03
Tuberculosis (pulmonary).....Cases..	171	165	+6	2.64	2.57	+.07
Deaths.	60	58	+2	.93	.90	+.03
Tuberculosis (other forms).....Cases..	35	30	+5	.54	.47	+.07
Deaths.	18	7	+8	.28	.11	+.17
Typhoid fever.....Cases..	4	11	—7	.06	.17	—.11
Deaths.	2	1	+1	.03	.015	+.015
Whooping cough.....Cases..	65	50	+15	1.00	.78	+.22
Deaths.	1	6	—5	.015	.09	—.07

The foregoing table include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1924 (mid-year), based upon the federal census of 1920, has been used.

DIPHTHERIA: CASES AND DEATHS IN BOSTON, MASS., BY PERCENTAGES FOR CERTAIN AGE GROUPS. RESIDENTS AND NONRESIDENTS INCLUDED.

	Per Cent of Population U. S. Census.	Cases of Diphtheria.	Deaths from Diphtheria.
		Percentage to Total Cases.	Percentage to Total Deaths.
Under school age (under 5 years)	9.5	63.8	80.9
School age (5 years to 14 years, inclusive)	17.0	25.6	13.3

1559

Rec'd NOV 6 1924 B. P.

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, OCTOBER, 1924. No. 10

PROGRESS IN BABY SAVING.

One progress made in the field of preventive medicine has taught us the great importance and the relative value of infant and baby welfare and child hygiene, and has become a very large part of the program of municipal health departments in all of the large cities of the United States and Canada.

In Boston for a number of years a great deal of the baby welfare and child hygiene work has been carried on by the Baby Hygiene Association which combined about a year ago with the Instructive District Nursing Association, creating the organization known now as the Community Health Association. The Boston Health Department has also been doing infant and child hygiene work, supplementing some of that done by the private agencies, and carrying on the things necessary in this work that was not being done by the Community Health Association.

Correlating the work in this way was the only sound and practical plan possible, as it would have been a waste of the taxpayers' money to have duplicated that which was already being done by a private agency and would have also been a duplication and waste of effort, not only creating confusion, but also developing an unsound

principle in public health work. This co-ordinated effort of the municipal and private health agencies as carried on in Boston has been considered a splendid and constructive contribution to public health and has received very favorable recognition.

The Community Health Association whose report states that it had spent approximately $140,000 in 1923 for its baby and child welfare program announced the fact that it would be difficult for them to continue this generous program owing to lack of budget provision, and asked the city to take over some of this work on September 1, 1924.

Nothing is as important as good health, and the very foundation for the prevention of disease depends upon the development of the proper physical resistance in the individual, and that resistance can and should be developed by pre-natal instruction given to the expectant mother, the conduction of baby conferences, and home instruction, instruction in child hygiene, nutrition, dissemination of health information, etc.

There are approximately 20,000 babies born per annum in Boston. Of this number it is estimated that about 10,000 of them are in need of health education and physical supervision as outlined above, and ought to be linked up with the necessary program. It is not unreasonable to believe and is based upon the sound judgment of those who have made the subject a study that money spent on this work will be saved by a lowered budget for the construction of hospitals, sanatoria and almshouses in the future. It ought to be manifest that while the carrying on of infant and child welfare is a municipal obligation, it is nevertheless money well and wisely spent.

The request by the Community Health Association that they be relieved from the carrying on of the above program in Charlestown, the North End, the South End, the West End and East Boston, necessitated the immediate development of sound and practical plans for the carrying on of this work in the above-mentioned sections. This could only be done by an adequate and well trained personnel, and with that in mind the Health Commissioner requested of his Honor the Mayor sufficient money with which to engage thirty public health nurses for the carrying on of this all-important work. His Honor, with his usual keen interest in public health, and recognition of the city's obligation to the babies and children of Boston, heartily approved of his request.

Nurses well trained in infant welfare and child hygiene have been selected from the Civil Service list, districts have been mapped out to which they have been assigned, and the work is already being carried on without any interruption of the former program.

As evidence of the correlation and team work between the Boston

Health Department and private agencies may be mentioned the fact that in every instance the conferences are being conducted in the very same stations and headquarters formerly used by the Community Health Association, the physicians who are functioning for the above organizations have been retained by the city, and all of the nurses formerly employed by the Community Health Association and who were on the Civil Service list, have been taken over by the city.

The conferences already held since September 1 have been well attended and offer much promise for the carrying on of a successful program of our Health Department.

The Health Department is grateful to the Community Health Association for its co-operation during this period of readjustment and also desires to take advantage of this opportunity to ask parents, physicians, and all interested in better babies for Boston to co-operate with the Health Department in every possible manner towards the development of that aim and ambition.

In the 124 years of its more or less varied existence, Boston has lead the way with many radical measures for improving the public health. Boston was the first city in America to undertake child hygiene work along definite municipal lines. Modern thinkers realize that the greatest opportunity to rid the world of insidious diseases as well as to instill the spirit of cleanliness, proper eating, right living and the highest ideals of citizenship lie in child hygiene work.

It was soon realized that if a reduction in infant mortality rate was to be attained, special emphasis must be placed upon the proper supervision of the milk supply, and a very close relationship between the decline of infant mortality and the increased supervision of dairies, pasteurization of milk, etc., has therefore been noted in this city. During the year 1900, the death rate for children under one year of age was 146 per 1,000 living births. This same rate continued for the next few years and in 1906 it was 143 per 1,000 living births. In 1914 it was 103.12, while in 1917, after the above mentioned milk supervision, together with the home educational visits and baby supervision by the nurses of this department, as well as by others, the infant mortality rate had dropped to 98.9 — a wonderful saving of babies' lives.

The infant mortality rate during 1922 dropped to 92.7 and during 1923 still lower to 83.82. When it is realized that the dropping of a point means the saving of many babies' lives, the above record is surely pleasing to even the most pessimistic.

A glance at the infant mortality for the first six months of this year — 1924 — is still more satisfactory.

Deaths under one year of age for first twenty-six weeks during each of last seven calendar years as were follows:

1924.	1923.	1922.	1921.	1920.	1919.	1918.
767	933	844	799	1,099	984	1,044

This record shows the lowest infant mortality for the first six months of this year ever attained in this city, and we believe is in no small measure due to the intensive field work, practical and instructive, carried out by the nurses of this department.

The deaths of children under two years of age from diarrhœa and enteritis also show remarkable improvement. During 1914–15 the average was 76.10 per 100,000 of population; during 1917 it had dropped to 54.51 per 100,000 of population. During the year 1922 there was a tremendous improvement with a drop to 28.27 per 100,000 of population, while in 1923 a still further drop to 19.21 per 100,000 was brought about. That is, only about one-third of the children died from these diseases in the year 1923, as had died during 1915 from the same causes. A most gratifying result and one which should stimulate us all to reach the goal of the irreducible minimum.

GRADE "A" MILK.

The State Department of Public Health has recently held several hearings on Grade A milk. This milk was the subject of legislation last winter in chapter 310 of the Acts of 1924.

They have adopted regulations which mean that this milk is to be handled as follows:

After defining the milk, which shall be pasteurized, and after pasteurization shall be kept at 50 degrees Fahrenheit, it shall contain not more than 25,000 bacteria per cubic centimeter, and not less than four per cent of milk fat.

It shall be produced at dairies receiving a permit to produce milk for that purpose and any permit so granted shall be revoked by the Board of Health granting it if the milk room is not clean, the cows healthy, if the cows' udders are not clean at milking time, if the cows are not milked with clean, dry hands into small-top pails, if the milk is not removed from the stable immediately after milking, and if the milk is not quickly cooled to a temperature of 50 degrees or less.

Any person pasteurizing Grade A milk shall not use for such purpose any milk not more than forty-eight hours old or milk containing more than 250,000 bacteria per cubic centimeter. Those who pasteurize the milk shall at least twice a month determine the bacterial content of such milk.

The apparatus used in pasteurizing this milk is to be cleaned at the close of each day's work and be in a clean condition when next used. The outfit shall be equipped with automatic recording thermometers approved by the Department of Public Health. All temperature records obtained in pasteurization of Grade A milk shall be kept on file for a period of not less than ninety days.

The bacteria count shall be determined by the methods of the American Public Health Association and the accepted figure shall be the medium of a series of not less than three or more than seven samples taken at approximately the same time. The dealers are to receive two warnings from the Board of Health which analyzes the milk. After the first warning a second series of samples are to be taken and not less than five days thereafter intervening. If these are also bad a third series of samples may be taken not less than three days thereafter. It shall be considered a breach of this regulation if both the second and third series of samples exceed in bacterial content that provided therein.

Bottles containing this Grade A milk shall be covered with a cap and seal or such other covering device to protect the lip of the bottle from contamination. The cap shall also state the day of the week upon which the milk was pasteurized and shall bear the words "Grade A Pasteurized."

On Tuesday, September 16, 1924, after the public hearing required by the statute, the Department of Public Health, under the provisions of chapter 310 of the Acts of 1924, adopted the following regulations relative to Grade A milk, and not less than fourteen days after this advertisement appears, these regulations will be submitted to the Governor and Council for approval.

Regulation 1.

Grade A milk shall be pasteurized within this Commonwealth, and shall be natural cow's milk not more than forty-eight hours old when pasteurized by heating for a period of not less than 30 minutes to a temperature of not less than 140 degrees Fahrenheit, nor more than 145 degrees Fahrenheit, and immediately thereafter cooled to a temperature of 50 degrees Fahrenheit or lower, and shall be kept at such temperature until delivered to the consumer, and when so delivered shall contain not more than 25,000 bacteria per cubic centimeter and not less than 4 per cent milk fat.

Regulation 2.

All milk intended to be ultimately sold as Grade A milk shall be produced at dairies receiving from the board of health of any town where such Grade A milk is intended to be sold, a permit to produce

milk for that purpose. No such permit shall be granted, and any permit so granted shall be revcked by the Board of Health granting it if the stable and milk room are not clean, if the cows are not healthy, if the cow's udders are not cleaned at milking time, if the cows are not milked with clean, dry hands into small-top milk pails or with a clean milking machine, if the milk is not removed from the stable immediately after milking in the pails into which it was milked, if the milk is not quickly cooled to a temperature of 50 degrees Fahrenheit or less, and kept at such temperature until delivered; provided, that if the milk is shipped to the receiving station immediately after milking and before its temperature can be reduced to 50 degrees Fahrenheit, such milk may be used for Grade A milk if its temperature is quickly reduced at the receiving station to 50 degrees Fahrenheit or less.

Regulation 3.

Each person, firm or corporation pasteurizing Grade A milk shall not use for such purpose any milk more than forty-eight hours old, or any milk obtained from a dairy not having a permit required by Regulation 2, or any milk received at a temperature above 50 degrees Fahrenheit, except as provided in said Regulation, or any milk containing more than 250,000 bacteria per cubic centimeter, and shall at least twice a month determine or cause to be determined the bacteria content of the milk of each such dairy.

All records of bacteria counts made under the provisions of this regulation shall be kept for at least one year, and shall be open to inspection by all milk inspectors of cities or towns where the milk is to be sold, and to all officers, inspectors, or other employees of the Department of Agriculture and the Department of Public Health.

Regulation 4.

Each person, firm or corporation pasteurizing Grade A milk shall keep his plant and apparatus in a clean and sanitary condition, and shall cause all apparatus and untensils used in the pasteurization of milk to be cleaned at the close of each day's work and to be in a clean condition when next used.

All apparatus used in the pasteurization of Grade A milk shall be equipped with automatic recording thermometers approved by the Department of Public Health, and all temperature records obtained in the pasteurization of Grade A milk shall be kept on file for a period of not less than 90 days.

Regulation 5.

All bacteria counts shall be determined by the methods of the American Public Health Association. The accepted figure shall

be the medium of a series of not less than three or more than seven samples taken at approximately the same time.

All samples of Grade A milk taken from delivery vehicles of licensed milk dealers for the purpose of determining the bacterial content thereof, shall be taken from different containers intended for sale. If the samples so taken show upon examination a higher bacterial content than is provided in these regulations, notice shall be sent to the person, firm, or corporation from whom these samples were taken, and not less than five days thereafter a second series of samples may be taken. If the examination of the second series shows a higher bacterial content than is provided in these regulations, notice shall be sent as provided herein and not less than three days thereafter a third series of samples may be taken.

It shall be considered a breach of these regulations should both the second and third series of samples exceed in bacterial content that provided therein.

REGULATION 6.

All bottled Grade A milk shall be covered with a cap and seal or such other covering device which will suitably protect the lip of the bottle from contamination. The cap shall state the day of the week upon which the milk was pasteurized, and shall bear the words: "Grade A Pasteurized."

This regulation shall become effective thirty days after the previous regulations have become effective.

BOSTON TUBERCULOSIS ASSOCIATION, BULLETIN NO. VI.

Phlyctenular Keratitis.

By GEORGE S. DERBY, M. D., OPHTHALMIC CHIEF OF SERVICE, MASSACHUSETTS CHARITABLE EYE AND EAR INFIRMARY, BOSTON.

(Introductory note by John B. Hawes, 2d, M.D., President Boston Tuberculosis Association.

The following bulletin by such an authority on eye conditions as George S. Derby should be read by every physician. Out-patient departments and dispensaries are crowded with children of the type to which he refers, who come for treatment of their eyes and in far too many instances it is the eye alone that receives any attention. Doctor Derby, who has done pioneer work in this direction, recently asked the Boston Tuberculosis Association to help in handling this

problem. It is as he states not by treatment of the eyes but by general hygienic measures, by introducing fresh air, sunshine, good food and right habits of living into the homes of these children that the disease in the eye which may later lead to serious blindness is to be checked.

Our association, therefore, has provided a trained worker who is to visit such children in their homes and to teach them so to live that the damage done by this form of tuberculosis may be reduced to a minimum.

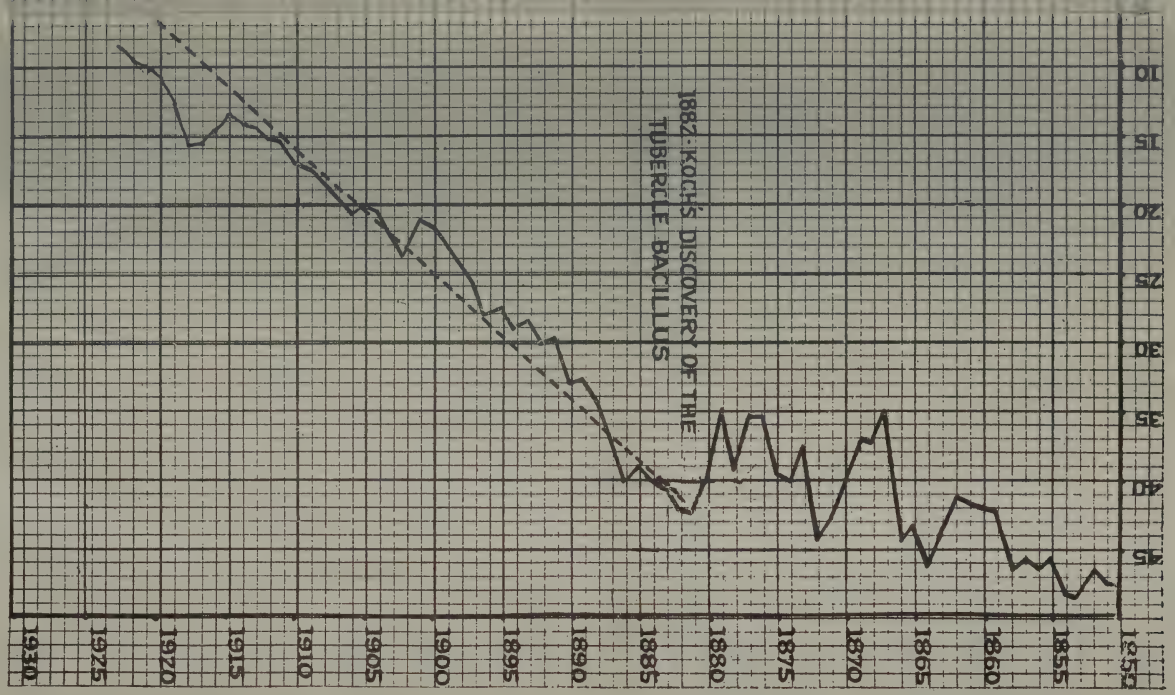
Poor vision begets incompetence. Poor vision due to scarring of the cornea in children and young adults is often caused by phlyctenular keratitis, which therefore becomes a problem of great importance.

Phlyctenular keratitis blossoms from the soil of undernutrition, anæmia and underweight, and it usually accompanies juvenile tuberculosis, most frequently of the skin of the face and mucous membranes of the nose, less often of the bones, lymph glands, lungs, tonsils and adenoids, and nasal sinuses. While the tubercle bacillus has never been found in the lesions of the eye, much clinical and experimental evidence has been accumulated to indicate that phlyctenular keratitis is a sequel of tuberculosis.

The eye lesions, or phlyctenules, usually multiple, running an acute course of one to two weeks, by predilection seek the limbus but also occur on the cornea and conjunctiva. The phlyctenule, red at the limbus, grey on the cornea, consists of a nodular collection of lymphocytes just beneath the epithelium, mounding up the epithelium overlying it, and accompanied by an injection of the adjacent conjunctival vessels. The phlyctenule may absorb without complications, or it may become transformed into a superficial ulcer through the loss of epithelium covering it. An ulcer, once formed, may either heal without scar, if superficial, or heal with scar, the density of which depends upon the depth to which the ulcer penetrated, or it may go on to perforation of the cornea. A persistent vascularization of the cornea (pannus) from the adjacent conjunctival vessels can usually be found at the site of the deeper ulcers.

Profuse lacrimation appears early, accompanied by marked photophobia, which causes the patient to shield the eye from light through burying the head in the hands or bedclothes. Attempts to examine the eye are strenuously resisted, and lid spasm is pronounced during the acute attack.

The prognosis depends upon the location and extent of the scars, especially those immediately overlying the pupil. Unless the



BOSTON TUBERCULOSIS CURVE.

Broken line indicates the number of deaths per 10,000 of population from Pulmonary Tuberculosis (Consumption) from 1850 to July 1, 1924.

Dotted line indicates the rate of decrease since 1882 continuing into the future.

general health is improved, there is a marked tendency to recurrences, which sooner or later will usually scar the pupillary area. While the eye is rarely made entirely blind, sufficient impairment of sight is produced to cause the child to fall behind in school. Occasionally, the poor vision may uncover latent tendency to squint.

Manifestly, the most urgent treatment is prevention, early attention to child health offering a fruitful field, to reduce the incidence and damage from the affection. The acute exacerbations of the disease require constitutional treatment as for any other form of tuberculosis, and local treatment designed to put the eye at rest and minimize complications.

THE VALUE OF RELAXATION.

Application of effort in one or more directions during the alloted working portion of each day is a constant drain on vitality, energy and strength.

No matter which extreme of effort drains the fountain of strength in a greater or less degree a stated interval in the particular round of duties or employment is necessary. What is needed in this interval is something different, a variety of program, a change. Specifically, if you work indoors, remain outdoors as much as possible during your leisure time. Sleep outdoors, play outdoors, take all your recreation outdoors. Practice deep, regular breathing, get all the fresh air you can. If your indoor activity is strenuous from a muscular standpoint, indulgence in forms of recreation that employ a different set of muscles is the type of change that you need. If your indoor activity is strenuous from a mental standpoint, indulgence in forms of recreations that develop your muscles is the proper variety you should seek, remembering only that unused muscles have a tendency to complain when harshly used after long inactivity. In choosing a place to relax, pick out one that gives you the particular kind of change that you need.

The whole secret of relaxation at any season of the year is an absolute change, which cannot help but give you rest and recreation because of its very difference. Change your program with wisdom, select with care and indulge yourself wisely in pleasures that appear to you to give you the change that is most necessary to permit the continuance of the standards that require application of vitality, energy and effort when routine compels you to forego desired varieties of pleasure. Assume a frame of mind that permits you to enjoy yourself to the utmost, be contented and cheerful and happy, and alert to the things that surround you in the different atmosphere in which you find

yourself for the time being. Return to that continuity of duty or employment you have selected for yourself, or which has been thrust upon you, with no regrets, with anticipation and with delight, knowing that you have restored your mental and physical resources, and feeling that you are full of vim, vigor and vitality and courage born of that knowledge.

The Value of Fresh Air.

Fresh air in the winter time is healthful. Cold, exhilarating fresh air in the winter time is beneficial. Take adequate precautions to protect the body with warm, not uncomfortable clothing; wear good footwear. Spend a part of each day, if possible, in the open air, exercising sanely. If you cannot or do not like skating, tobogganning, snowshoeing and such sports, you can get just as much fresh air and just as much physical benefit by walking. Bear in mind that the best kind of air is fresh air, and that no matter how scientifically perfect artificial means of ventilation are within doors, the perfection of natural, fresh air cannot be excelled. When you are out doors practice deep, regular breathing. Sleep regularly, do not overeat. Do not hibernate because the weather is cold, or because snow is on the ground. Snow purifies the air surrounding it.

DECREASE IN DEATHS FROM PUERPERAL SEPTICAEMIA.

Puerperal septicaemia, or childbed fever as it was once commonly called, has been the ever present fear of the obstetrician for years. The possibility of its occurrence after delivery has always caused anxiety both on the part of the physician and of those dear to the mother who may be stricken with it.

Before the days of maternity hospitals, when the mother was delivered at home, perhaps attended by unskilled volunteers and often under circumstances and conditions which were anything but conducive to asepsis, the death rate from puerperal septicaemia was much higher. Since mothers have been enlightened on the subject of public health in general and have become acquainted with the public health nurse and doctor who visit their homes and impart information of vital importance to them, both in the prenatal and postnatal stage, a gradual diminution in the death rate from this condition appears in our vital statistics.

In the chart on page 246 inspection will reveal the gradual downward tendency of the puerperal septicaemia death rate in Boston since the year 1916. Except for a slight increase in the

rate during the years 1920 and 1921, the decline has been remarkable. This showing would certainly seem to reflect credit on those organizations which, co-operating with the Health Department, have been so helpful in efforts to reduce the puerperal septicaemia rate to a minimum and to put Boston among the leading cities of the world in the matter of a low death rate from this disease.

PNEUMONIA.

One important fact that we have learned in connection with our study of pneumonia is that all the common organisms which have been found capable of producing pneumonia, the four types of pneumococcus and the streptococci, including the hemolytic streptococcus, may be found in a virulent form in the mouths and throats of many people without apparently doing them any harm. It has also been found that if people whose mouths and throats are free from the organisms which may produce pneumonia are brought into more or less intimate association with people who are carrying such organisms in their mouths and throats, the newcomers tend very rapidly to acquire these organisms also.

Long before bacteria were ever thought of in connection with pneumonia, it was well recognized that pneumonia was usually associated with physical exhaustion, that it was likely to occur in persons who had been subjected to unusual physical strain, perhaps coupled with exposure to cold and wet, or who were weakened by some acute or chronic disease or who had been deprived of customary sleep. For the time being, at least, we will have to rely chiefly on measures for prevention. Such measures are the avoidance of everything which tends to physical exhaustion during the pneumonia season, for, as far as we know, physical exhaustion alone may be sufficient to make the carrier of the virulent pneumococcus vulnerable to active infection by this organism. Likewise, it is to be inferred that any acute illness, even a cold, may be sufficient to so lower the resistance of the individual to a pneumonia-producing organism that an acute fatal case of pneumonia may result. To this extent at least colds or any acute respiratory infections may be regarded as factors in predisposing to pneumonia. And they in turn may be regarded as the consequence of a respiratory mucous membrane superheated, dried out and devitalized and irritated by the dust and gaseous mixtures to be found in human habitations in the colder months of the year. Especially to be avoided is the bringing of persons who are not carriers of pneumonia-producing organisms and who may be suffering from some acute illness into a hospital ward or elsewhere where they may come in close association with persons

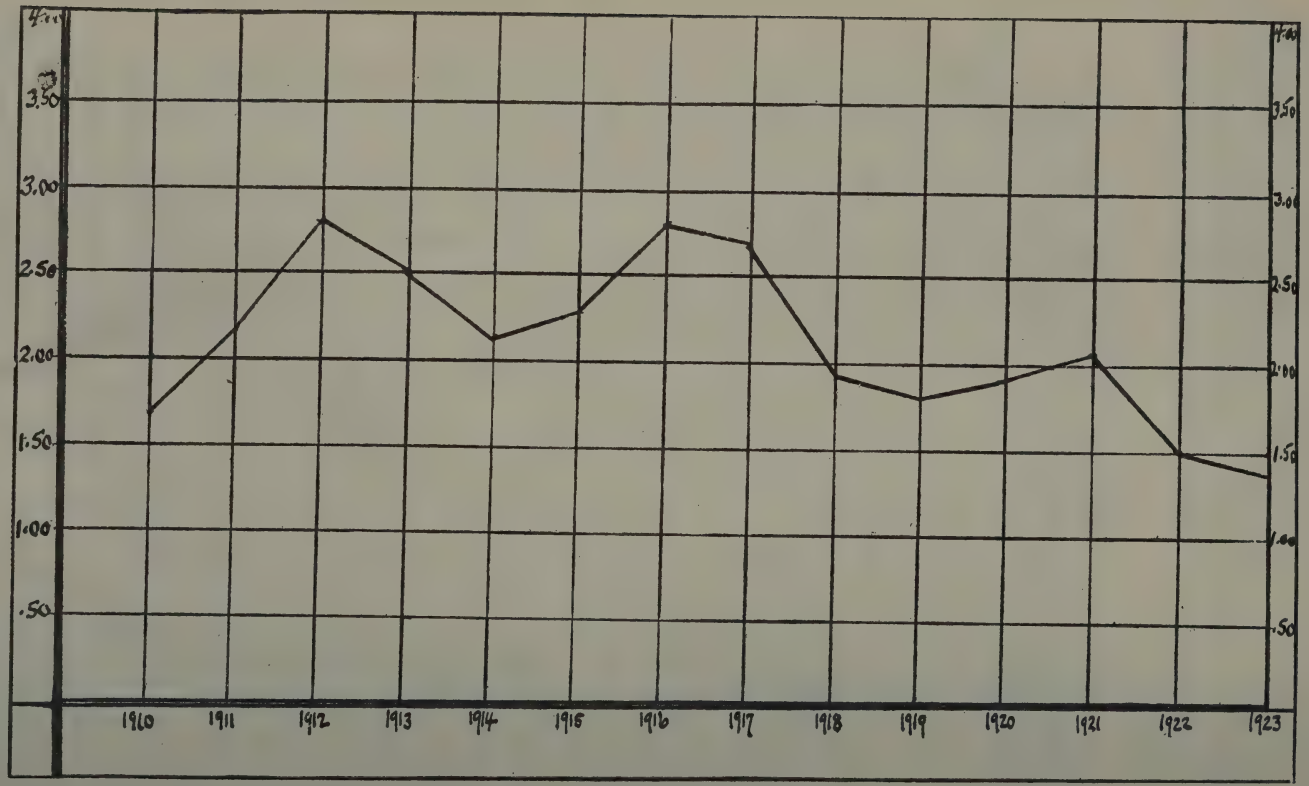
carrying pneumonia-producing organisms. Danger from pneumonia is lessened by leaving a sick person by himself in his own home if possible rather than putting him with other people in a hospital ward. The physical effort and possible exposure always involved in the transportation of a person seriously ill from his home to a hospital are in themselves also something to be avoided if practicable.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING SEPTEMBER, 1924.

Classification.	Number.	Percentage.
	Sept.	Sept.
After death	9	20.00
Seven days or less	3	6.67
Eight to fourteen days, inclusive	3	6.67
Fifteen to twenty-one days, inclusive	1	2.22
Twenty-two to thirty-one days, inclusive	0	—
Within First Month	16	35.55
Within second month	5	11.11
Within third month	2	4.45
Within fourth month	1	2.22
Within fifth month	2	4.45
Within sixth month	3	6.67
Within seventh month	0	—
Within eighth month	0	—
Within ninth month	1	2.22
Within tenth month	1	2.22
Within eleventh month	0	—
Within twelfth month	1	2.22
Within First Year Preceding Death	32	71.11
Within second year	4	8.89
Within third year	6	13.33
More than three years	3	6.67
Totals	45	100.00

SALE OF LOBSTERS THAT WERE UNFIT FOR FOOD.

A dealer in live lobsters was summoned into the Municipal Court on complaint of an inspector of the Boston Health Department, charged with violation of the food law in selling seven lobsters that were unfit for food, because of the fact that they were sold dead. The dealer was found guilty and fined $100.



DEATH RATE OF MOTHERS FROM PUERPERAL SEPTICAEMIA PER 1,000 CONFINEMENTS IN BOSTON, MASS., DURING YEARS 1910 TO 1923, INCLUSIVE. RESIDENTS AND NONRESIDENTS.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during September. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.26	3 50	63
Allen, Fred H.	12.63	3.82	14
Anderson, Oscar A.	12.38	3.82	70
Antetomasso, Peter	12.60	3.95	7
Barry, Michael F	12.31	3.78	29
Barron, Clarence W	13.92	4.93	9
Bemis, Henry E. Estate of,	12.34	3.80	39
Bergmann, John H.	12.70	4.00	10
Bolio, William	13.12	4.16	259
Bowditch, Estate, E. F	12.20	3.70	28
Brandley, Thomas J. & P. J.	12.47	3.85	22
Buxtom, William	12.24	3.55	8
Casey, James D.	13.59	4.49	287
Cashin, James F.	13.94	3.88	42
Cedar Hill Farm, Inc.	13.12	4.40	16
Chapin, George L.	12.30	3.55	19
Childs Brothers Company	12.58	3.96	53
Clapp, Frank L.	12.76	3.90	8
Clark, Levi	12.30	3.85	34
Cohen, Benjamin	13.13	4.25	72
Corkery, John H.	12.38	3.63	93
Creedon, Raymond	12.26	3.78	72
Cummings, F. S., Company	12.26	3.71	17
Cunningham, Paul	14.40	5.30	16
Cusick, William H.	12.22	3.65	324
Deerfoot Farm Milk Company	12.32	3.76	22
Denehy, Timothy	12.21	3.85	74
Driscoll, William B., Company	12.64	3.70	22
Duggan Brothers	12.52	3.67	27
Edgerly, Frank S.	12.63	3.97	106
Elm Spring Farm Milk Company	12.78	3.81	38
English, J., & Sons	12.73	3.81	1,146
Ferguson, Malcolm D.	12.50	3.80	40
Floyd Milk Company	12.44	3.83	365
Garfield, Mason	14.40	4.90	4

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Garvin, Charles E	12.80	4.00	6
Giroux, J. E., & Co	12.18	3.72	136
Griffin Brothers	12.77	4.02	23
Griffin, Joseph L	12.51	3.70	16
Gushee, W. S. & C. W	12.13	3.47	14
J. M. Hagar & Son	12.58	3.75	31
Hancock, T. G., Company	12.57	4.01	78
Herlihy Brothers	12.43	3.80	155
Hickey, Martin J	12.34	3.90	216
Holden, John E	12.24	3.78	56
Holland & Cosgrove	12.29	3.82	214
Hood, H. P., & Sons, Inc	12.14	3.60	56
Hutchinson, Frank C	12.52	3.60	16
Jones, William T., Company	12.58	3.86	19
Kendall Brothers Company	11.99	3.50	433
Kennedy, Robert	12.71	3.96	130
Kingston, Samuel	12.67	4.10	17
Klawa & Freeman	12.26	3.75	24
Knapp, George J	12.77	3.83	322
Kozlofsky, Fedora	12.85	3.80	51
Lang, Michale J	12.22	3.70	16
Larsson, Charles	12.29	3.55	18
Lincoln Farms, Inc	12.01	3.42	6
Lyndonville Creamery Association	12.41	3.50	32
Manning, Peter	12.22	3.80	168
Maple Farm Milk Company	12.85	4.05	31
McAdams, John F	12.42	3.78	237
McGilvray, Charles D	12.32	3.76	150
McKernan, John	12.35	3.57	21
Moore, Peter	12.47	3.75	172
Munchbach, George	12.15	3.42	66
Newton & Pope	12.68	3.85	583
Noble, William F., & Sons Company	12.61	3.95	14
Rautenberg, Otto G	12.45	3.62	124
Raycraft, Benjamin	12.54	3.95	12
Robinson, Albert J	12.67	4.00	31
Robinson, James A	12.63	3.92	116
Runkle, John C	13.32	4.60	17
Seven Oaks Dairy Company	12.28	3.78	51
Shick, Jacob	12.55	3.71	205

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Smith & Lynch	12.27	3.75	78
Schuster, Adam	12.35	3.80	44
Somerset Farms Milk Company	13.06	4.20	10
Sterling Farms Milk Company	12.32	3.65	26
Stone, Howard L	12.65	3.61	162
Stuart, Wallis E	12.31	3.70	11
Sullivan, John D	12.09	3.47	20
Sullivan, John L	12.56	3.90	30
Turner Centre System	12.48	3.72	32
Vartanian, Gazer	12.08	3.68	64
Vartanian, Setrag	12.15	3.73	197
Walker-Gordon Milk Company	12.70	4.11	13
Ware George H	12.46	3.86	25
Weiler, E., & Sons	12.73	3.90	33
Werner, F., Company	12.56	3.95	79
Westwood Farm Milk Company	12.34	3.65	14
White Brothers	12.47	3.77	44
Whiting Milk Companies	12.21	3.70	119
Wittenberg & Recks	12.18	3.68	113
Whittemore, Warner D	12.37	3.82	13
Wiswall, Granville A	13.36	3.56	170
Woodland, Charles L	12.78	3.88	180

CHAIN STORE MILK.

Name of Dealer.	Supplied by.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic and Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.46	4.02	252
The Cloverdale Company	Turner Centre System, Inc.	12.22	3.75	46
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.45	4.00	15
Co-operative Grocery Company,	J. M. Hager & Sons, Inc.	12.30	3.57	43
Economy Grocery Company	Whiting Milk Companies	12.20	3075	72
First National Stores, Ltd.	United Farmers' Co-operative Creamery Company and Whiting Milk Companies.	12.59	3.97	16
Morgan Brothers Company	Morgan Brothers Company and Whiting Milk Companies.	12.66	4.05	19
M. O'Keeffe, Inc.	J. M. Hagar & Sons, Inc.	12.35	3.57	20
Rose Tea Company	Whiting Milk Companies	12.52	3.85	188
M. Winer & Co.	Hyman Winer	12.26	3.55	34

SUMMARY OF THE WORK, SEPTEMBER 1, 1924.

BUREAU OF ADMINISTRATION.

	Sept.	Aug.
Hearings authorized	1	3
Prosecutions ordered	15	16
Offensive trades approved	3	3
Legal notices	253	252
Forcible removals	0	1
Orders	0	2
Conferences	2	5

	Sept.	Aug.
Personnel:		
Transfer	0	1
Provisional	4	2
Permanent	3	21
Resignation	1	1
Leave of absence	0	1
Official visits authorized,	1	1

LICENSES, PERMITS, ETC., ISSUED.

	Sept.	Aug.
Burial permits	880	928
Milk licenses	193	127
Beverage licenses granted,	0	8
Pedlers' licenses granted,	66	540
Hen licenses granted	12	32
Stable permit granted	1	2
Stable permit granted provisionally	1	1
Hen license refused	1	0
Stable permits extended temporarily	1	1
Poultry licenses granted,	12	32

	Sept.	Aug.
Undertakers' licenses granted	0	3
Undertaking establishments authorized	0	3
Denatured alcohol licenses	3	10
Manicure-massage:		
Granted	77	68
Dumps	1	0
Lying-In Hospitals licensed	1	2

MEDICAL DIVISION.

HEALTH UNIT (Blossom Street).

	Sept.
HEALTH DEPARTMENT PROPER:	
Vaccinations	419
Vaccination certificates	65
Antitoxin, antityphoid, Schick toxin-antitoxin given	3
Children examined for camps and day nurseries	15
Visits by medical inspectors,	45
Dental Service:	
Number of operations	622
Number of dismissals	38
Number of children treated,	399
Nurses' Visits:	
Communicable diseases	125
Miscellaneous:	
Complaints of insanitary conditions	10
Information requests	400
Resident visitors	35
Nonresident visitors	10
Posture Classes:	
No classes	7
Attendance	47

	Sept.
COMMUNITY HEALTH ASSOCIATION:	
General:	
Home visits by nurses	845
Child Hygiene Division:	
Number of conferences	8
Conference attendance	533
New babies admitted	46
Home visits to babies	964
BOSTON DISPENSARY:	
Calls by district physician	20
BOSTON SANATORIUM:	
Calls by nurses in district	708
Habit Forming Clinics:	
No clinics	4
Attendance	20
Home visits	37

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, SEPTEMBER 1, 1924.

SYPHILIS.

Current cases under investigation September 1, 1924	23
New cases assigned during the month	3
Total	26

DISPOSITION OF CASES.

Located:	
Placed under treatment	5
Under treatment	0
Not located:	
Search abandoned	6
Under investigation September 30, 1924	15
Total	26

GONORRHEA.

Current cases under investigation September 1, 1924	87
New cases assigned during the month	6
Total	93

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	19
Further treatment unnecessary	2
Not Located:	
Search abandoned	36
Fraudulent use of name	1
Under investigation September 30, 1924	35
Total	93

SUMMARY.

Current cases under investigation September 1, 1924	110
New cases assigned during the month	9
Total	119

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	24
Further treatment unnecessary	2
Not Located:	
Search abandoned	42
Fraudulent use of name	1
Under investigation September 30, 1924	50
Total	119

Form letters mailed to above patients	9
Form letters unclaimed returned from post office	6
Form letters accepted by patients	3
Venereal disease complaints	0
New cases	11
Under investigation September 1, 1924	5
Disposition of complaints:	
Placed under treatment	5
Under treatment	1
Unable to locate	2
No evidence of disease	1
Under investigation September 30, 1924	7
Visits by investigators	382

BUREAU OF COMMUNICABLE DISEASES.

	Sept.	Aug.		Sept.	Aug.
Visits:			Medical inspector's activities:		
By medical inspectors,	484	609			
By veterinarian	216	262	Schick tests	6	0
By investigator	281	222	Schick readings	1	0
By nurses	1,422	1,451	Toxin-antitoxin injections	24	163
Cases brought to Boston for treatment	54	59	Vaccinations	465	40
Deaths investigated	16	24	Vaccination certificates	0	5
Nurses' Schick activities	0	0	Antitoxin injections	0	2

CHILD HYGIENE DIVISION.

	Sept.	Aug.
Total number of all visits	*7,328*	*3,058*
Visits to new cases	1,145	594
Visits to old cases	5,824	2,253
Ophthalmia cases:		
Visits by Child Hygiene Division	129	130
Visits by Health Unit	0	18
Infant mortality investigations	98	41
Maternal death investigations	46	36
Miscellaneous	86	0

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Sept.	Aug.
New reports	3,543	2 428
Stores inspected	3,885	2,642
Sanitary defects remedied	116	69
Complaints at office	51	65
Referred to Sanitary Division	18	8
Milk applications	128	57
Peddlers:		
Applications for licenses approved	71	109
Vehicles inspected and approved	529	656
Court cases	20	13

Convictions	9	8
Fines	$270	$75
Continued	10	5
Discharged	1	0
Laboratory Examinations:		
Bacteriological	1	6
Chemical	2	6

CONDEMNATIONS.

Requested.		Turnips	1 bushel
Apples	1 bushel	Veal	36 pounds
Asparagus tips	9 cans		
Breakfast food	12 packages	Not Requested.	
Cherries	9 cans	Bear	80 pounds
Beef	239 pounds	Beef	225 pounds
Cabbage	85 pounds	Chicken	21 pounds
Carrots	1 bushel	Diced beets	36 cases
Corn	2 bushels	Eggs, liquid, lbs	90 cases
Fowl	45 pounds	Eggs	3 cases
Lamb	12 pounds	Ham	9 pounds
Miscellaneous meat	40 pounds	Livers	45 pounds
Mutton	30 pounds	Livers	2 pounds
Oleomargarine	4 pounds	Plucks	1 pound
Peppers	½ bushel	Pork	95 pounds
Peaches	8 cans	Poultry	178 pounds
Peaches	½ bushel	Prawn	125 pounds
Plums	19 cans	Prunes	100 pounds
Sausage	15 pounds	Sweetbreads	8
Tomatoes	¾ bushel	Veal	722 pounds

LIVE STOCK INSPECTION (Brighton Abattoir).

	Sept.	Aug.		Sept.	Aug.
Cattle inspected	284	131	Sheep inspected	9	0
Calves inspected	1,375	1,044	Parts condemned (lbs.)	4,360	1,934
Swine inspected	3,916	2,868	Animals condemned	5,584	4,043

DAIRY DIVISION.

	Sept.	Aug.		Sept.	Aug.
Total inspections	1,552	1,107	Inspection of milk plants and licensed dealers	340	388
Dairies inspected	592	562			
Scoring above 50 *	395	340	Bacteriological examinations	586	105
Scoring below	197	222			
With milk rooms	384	370	High bacterial counts investigated	17	9
Without milk rooms	208	192			
Inactive	4	30	Country creamery inspections	13	13
Total cattle inspected	7,615	7,584			

*Passable mark.

BUREAU OF MILK INSPECTION.

	Sept.	Aug.
Chemical inspection of:		
Milk	1,280	1,539
Vinegar	74	145
Eggs	1	5
Miscellaneous	6	1

	Sept.	Aug.
Bacteriological examination of:		
Milk	517	466
Ice cream	89	60
Bottles	0	0
Court cases	38	37
Fines	$735	$430

SANITARY INSPECTION.

	Sept.	Aug.
Original inspections	1,326	769
New reports	2,301	1,425
Reinspections	5,321	4,156
Legal notices served	199	100

	Sept.	Aug.
Complaints	749	617
Court cases	4	6
Fines	$2,885	0

BACTERIOLOGICAL LABORATORY.

	Sept.	Aug.
Diphtheria	637	625
Tuberculosis	237	200
Typhoid	60	58
Gonorrhea	622	568
Gonorrheal ophthalmia	45	43
Syphilis	1,396	1,258
* Other examinations	31	29
Bacteriological examinations of milk	519	466
Bacteriological examinations of ice cream	89	62

* Malaria, 12; genito-urinary tuberculosis, 5; dark field examinations, 3; paratyphoids, 4; smears for Vincent's, 1; smear for streptococci, 1; urine for typhoid, 1; feces for typhoid, 1; smear for T. B., 1.

HOSPITALIZATION OF VETERANS.

On June 7, 1924, Public Act No. 242, 68th Congress, was enacted into law as the World War Veterans' Act. Among other benefits this law provides that ex-service men since 1897, suffering from active tuberculosis and neuro-psychiatric ailments, are entitled to hospitalization.

A claimant must be in need of actual residence in hospital for the treatment of these disabilities, which are so aggravated or extensive that they could not properly be treated in an out-patient department.

These facts are brought to your attention, in order that, if you are aware of any such ex-service men suffering from the above named disabilities, you will inform the Veterans Bureau of the names and addresses of such claimants that they may be contacted, inasmuch as they might be entitled, at the present time, to both hospitalization and compensation. Your co-operation is earnestly sought so that these cases will be properly and promptly adjudicated, inasmuch as evidence must be presented of the claimant's condition before January 1, 1925, to conform with the World War Veterans' Act.

VITAL STATISTICS, SEPTEMBER, 1924.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING SEPTEMBER, 1924, WITH COMPARATIVE FIGURES FOR SEPTEMBER, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
All Causes:						
Total deaths	**735**	721	+14	**11.35**	11.23	+.12
Nonresidents deducted	**569**	582	—13	**8.79**	9.06	—.27
By Age:						
Under one year	**111**	89	+22	**1.71**	1.39	+.32
One year to four years, inclusive	**38**	32	+6	**.59**	.50	+.09
Sixty years and over	**257**	239	+18	**3.97**	3.72	+.25
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	**55**	40	+15	**.85**	.62	+.23
Arteriosclerosis	**30**	14	+16	**.46**	.22	+.24
Heart disease	**95**	149	—54	**1.47**	2.32	—.85
Nephritis, chronic	**29**	44	—15	**.45**	.68	—.23
Infant and Maternal Mortality:						
a. Total registered live births	**1,772**	1,491	+281	**27.37**	23.22	+4.15
b. Registered stillbirths	**64**	45	+19	**.99**	.70	+.29
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	**34.86**	29.29	+5.57
c. Deaths of mothers from causes incident to childbirth	**10**	8	+2	**.15**	.12	+.03
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	**5.45**	5.21	+.24
Deaths of children in first year of life	**111**	89	+22	**1.71**	1.39	+.32
Deaths in first year per 1,000 live births,	.....	.....	.....	**62.64**	59.69	+2.95
Violence:						
Accidents	**49**	51	—2	**.76**	.79	+.03
Homicides	**4**	1	+3	**.06**	.015	+.045
Suicides	**14**	11	+3	**.22**	.17	+.05
Miscellaneous:						
Alcoholism, acute or chronic	**10**	14	—4	**.15**	.22	—.07
Broncho-pneumonia	**21**	25	—4	**.32**	.39	—.07
Cancer	**87**	90	—3	**1.34**	1.40	—.06
Cirrhosis of the liver	**5**	3	+2	**.08**	.05	+.03
Diabetes mellitus	**16**	6	+10	**.25**	.09	+.16
Diarrheal diseases, children under two years of age	**27**	14	+13	**.42**	.22	+.20

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases..	25	8	+17	.39	.12	+.27
Deaths.	2	2	—	.03	.03	—
Cerebro-spinal meningitis.....Cases..	3	5	—2	.05	.08	—.03
Deaths.	3	3	—	.05	.05	—
Diphtheria.....Cases..	100	228	—128	1.54	3.55	—2.01
Deaths.	6	13	—7	.09	.20	—.11
Influenza.....Cases..	3	9	—6	.05	.14	—.09
Deaths.	—	—	—	—	—	—
Measles.....Cases..	33	43	—10	.51	.67	—.16
Deaths.	—	1	—1	—	.015	—.015
Pneumonia (lobar).....Cases..	38	36	+2	.59	.56	+.03
Deaths.	17	16	+1	.26	.25	+.01
Scarlet fever.....Cases..	88	77	+11	1.36	1.20	+.16
Deaths.	—	—	—	—	—	—
Tuberculosis (pulmonary).....Cases..	150	134	+16	2.32	2.08	+.24
Deaths.	49	45	+4	.76	.70	+.06
Tuberculosis (other forms).....Cases..	39	18	+21	.60	.28	+.32
Deaths.	11	5	+6	.17	.07	+.10
Typhoid fever.....Cases..	8	18	—10	.12	.28	—.16
Deaths.	2	1	+1	.03	.015	+.015
Whooping cough.....Cases..	25	33	—8	.39	.51	—.12
Deaths.	2	—	+2	.03	—	+.03

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1924 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

1559

MONTHLY BULLETIN
HEALTH DEPARTMENT

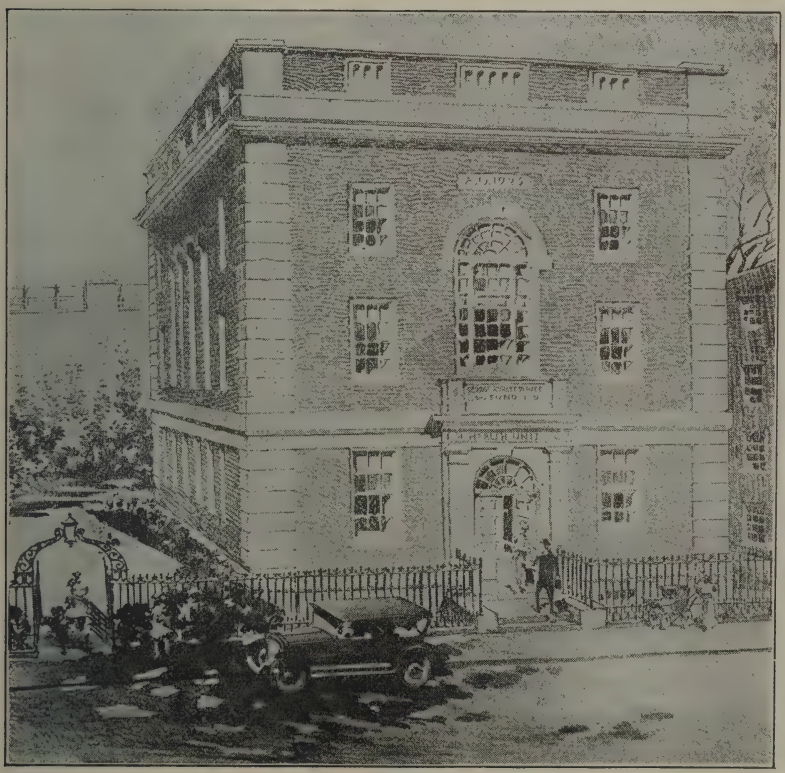
CITY OF BOSTON

Rec'd DEC 8 1924 B. P. L

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, NOVEMBER, 1924. NO. 11



BOSTON'S FIRST WHITE FUND HEALTH UNIT DEDICATED NOVEMBER 10 IN NORTH END.

BOSTON'S FIRST WHITE FUND HEALTH UNIT DEDICATED WITH FITTING CEREMONIES.

Mayor James M. Curley Presided and Dr. George E. Vincent, President of the Rockefeller Foundation, Delivered Address of Dedication.

An epochal occasion in Health Department progress was the dedication, on November 1, 1924, of the first George Robert White Fund Health Unit. This marks the beginning of a proposed chain of health centers planned for Boston and erected from the income of the White Fund, carrying on the splendid correlated health and welfare program which has been functioning at the Blossom Street Health Unit for the past few years.

The North End was selected by Mayor Curley, who is one of the trustees of the George Robert White Fund, as deserving of the first new building of this kind. Mr. George Robert White, who died a few years ago, created by the terms of his will a permanent charitable trust fund, the net income of which was to be used for "creating works of public utility and beauty, for the use and enjoyment of the inhabitants of the City of Boston," and the trustees of the fund deemed that the erection of health units ideally and best carried out his wishes.

The building is a three-story brick and stone structure. The income from the White Fund provides only for its construction. It will be managed and maintained by the Boston Health Department in co-operation with various private agencies devoted to the promotion of health and welfare of the people of the North End of Boston.

The work contemplated in the building will include child welfare conferences, dental service, classes in nutrition, physicians for the examination of certain special organs, as for example, the eye, nose and throat. In addition to serving the purposes above indicated, it is intended to be a civic center for the North End under municipal direction and a place where mothers' clubs and other social organizations may find opportunity to hold meetings. Mayor James M. Curley represented the City of Boston, Dr. Francis X. Mahoney, Health Commissioner, and Dr. Charles F. Wilinsky, Director of Health Units, the Boston Health Department, and Mr. George Phelan, the George Robert White Fund.

Significant of the occasion was the presence of President Emeritus Charles W. Eliot of Harvard College, and ex-Mayor Thomas N. Hart, whose interest in the progress of municipal health affairs at the venerable age of ninety-five years was an inspiration. Dr. George E. Vincent, president of the Rockefeller Foundation, delivered an impressive dedicatory address and Mrs. Harriet Brad-

bury, sister of the donor; Dr. David L. Edsall, dean of the Harvard Medical School, welcomed in well chosen words this new ally in the field of the prevention of diseases; Dr. Haven Emerson, professor of public health at Columbia University, who spoke on the history of health centers, and who characterized this structure as the Faneuil Hall of Public Health; Prof. Milton J. Rosenau, professor of preventive medicine at Harvard Medical School, who pointed out the fact that this building solved the problem of the decentralization of health departments and the bringing of them to the very doors of the homes in the community; Miss Mary Beard, director of the Community Health Association, who noted with satisfaction the most tremendous progress in the correlation of private and public health agencies. Also present at the exercises were Homer Calver, secretary of the American Public Health Association; Dr. George Tobey of the National Health Council; Kenneth Widdener of the East Harlem Health Center; Dr. Enos H. Bigelow, president of the Massachusetts Medical Association; Dr. Eugene R. Kelley, State Commissioner of Health; Dr. M. Victor Safford, Deputy Commissioner, Boston Health Department; Dr. George H. Bigelow, State Department of Health; Dr. Merrill Champion, Division of Child Hygiene, State Department of Health; Dr. Harold DeW. Cross, director of the Forsyth Dental Infirmary; Miss Gertrude Peabody and Mrs. De Normandie, vice presidents of the Community Health Association; Mr. Stephen L. Maloney, secretary Boston Health Department; Mr. H. Hooper Lawrence, president of the Boston Lying-In Hospital; Horace Morrison, chairman of the Boston Health League; Miss Florence Patterson, the newly elected director of the Community Health Association; Dr. John J. Dowling, superintendent of the Boston City Hospital; Doctor Howland, superintendent of the Peter Bent Brigham Hospital, and Dr. Douglass Thom, in charge of the State Department of Mental Hygiene at the State House.

The program opened with a few introductory remarks by Mr. George Phelan, manager of the George Robert White Fund. Rev. William H. Dewart, pastor of Christ Church, then gave the invocation. Mr. Charles N. Coolidge, architect of the building, presented the keys to Mr. Howard Coonley, president of the Boston Chamber of Commerce and one of the trustees of the fund. Mr. Coonley, as representative of the trustees, addressed the gathering and formally presented the new unit to Mayor Curley, who received it and replied on behalf of the city. The Mayor passed the keys to Dr. Francis X. Mahoney, the Health Commissioner, who in turn gave them in final charge to Dr. Charles F. Wilinsky, Director of Health Units and Secretary of the Health League.

Mayor Curley's address was as follows:

It is fitting that this milestone in the march of human progress so typical of enlightenment, so emblematic of service to one's fellow man should be erected within the shadow of Old Christ Church out of whose belfry was hung the lantern which lighted the way to the emancipation of the people of the world. Here in America we are gradually solving problems that have irritated mankind from the beginning. Here in this section through the instrumentality of the light which paved the way to liberty we have created on this continent a place where all may enjoy in the fullest possible measure the right to freedom of speech, freedom of thought, freedom of religion and where all may enjoy equal privileges and equal opportunities and the full enjoyment of liberty. That great movement marked the most advanced step taken to that day in the history of humanity. We have made some progress in the last century and a half. We have lightened the burden of our fellow man. Gradually there has come to us a realization of the obligation which each and every individual owes to his fellow man and with that realization there came the desire and the wish that some day there might be established in those sections of our larger cities where the people congregate in large numbers, where babies are born and many die, some character of agency where all philanthropic individuals and agencies interested in the consummation of public health might assemble and through co-operation and the co-ordination of effort make possible greater service to humanity. The dream has been realized in the erection and establishment here of the George Robert White Fund Health Unit. It would have come in the course of time but in all probability it would have been long delayed because of the expense and loud demands for local improvements which are always voiced in any city. There is a source of gratification in the knowledge that hand in hand with the progress represented here we are making progress in other directions. For the first time in the history of Boston we are to have an out-patient department for the tuberculosis agencies of our city. We probably will lay the cornerstone of that institution within the next thirty days.

About a week ago we dedicated for the people of Boston the largest and most complete out-patient building to be found controlled by any municipality in the entire world at the Boston City Hospital grounds. We have arranged to borrow three millions of dollars and will probably within the next thirty days advertise for bids for the erection and completion of a 100 bed maternity hospital at the Boston City Hospital as a part of the equipment of the Boston City Hospital for the combating of disease and the saving of human life. Through the instrumentality of this agency it will be possible

for us to provide accommodations at all times for 100 expectant mothers, insuring protection for the mother and protection for the child. It is a matter that should have been started and put in operation many years ago.

I found in 1914, upon assuming the office of Mayor, there was no place in Boston, with the exception of the Boston Lying-In Hospital, where the expectant mother without money could go. I established eighteen beds at the Boston City Hospital. I came back at the end of four years and found they had added but four beds and in the twenty-two beds, in four years, 2,500 children were born. It was only natural that with overcrowding and lack of proper facilities the mortality rate should be high and we are endeavoring to meet that problem. We are endeavoring to meet the problem of tuberculosis. We are endeavoring to solve some of the economic problems co-related with the combating of disease by the payment of what is known as the saving wage and by establishing a standard that can be followed with safety to the people of this country that will be conducive to the happiness in the home, peace of mind and patriotism in the land. And after all, there is no agency that has been of greater incentive to generous expenditures and the adoption of a wise program than this particular agency in which we are here assembled. It is a monument not only to the generosity of a great Boston citizen; it is more than that; it is a monument that will serve as an incentive to added service on the part of every individual in the community, but more than that will convey to every individual's mind a realization of his individual responsibility to his fellow man and to his fellow woman and if out of that realization of individual responsibility and if out of the possibilities of added service and sacrifice the opportunity of the individual citizens of this community there comes a greater service to the women and men of this section, it is only reasonable to anticipate that similar institutions to this one may ultimately be established in every city in the entire country. In accepting these keys I do so with the realization of the value that this institution may prove to America and to future generations, for after all, the most valued product in any land is the happy and healthy womanhood and manhood. The conservation of the womanhood and manhood of America is the most important task confronting America and when through the instrumentality of these institutions we contribute in any measure to this most necessary and potential work, then in our age and generation we have done something worth while and as we respect and as we thank the donor of this great institution whose generosity made it possible, so may succeeding generations remember him in their supplications and prayers as one citizen ever mindful of his obligation to his fellow man and

who made possible the discharge of that obligation by this great monument, a monument typical of his generosity, a monument of service, of sacrifice and of inspiration to all in America.

Remarks of Dr. Haven Emerson:

Aladdin has certainly come to Boston. A miracle has transformed what I learned some years ago to believe was a health center, from a tenement apartment, resembling a trolley car in proportions and a corner saloon in its setting, to this palace of prevention, this beautiful home of health.

The history of health is so much oftener marked by the quiet report of a modest student in the hospital or laboratory, that a great civic gesture such as this, calls for joy and exultation that Hygeia, the goddess of health, has at least a temple worthy of her.

All the spirit of the honored and powerful town hall of New England, that training school of citizenship, and of self-expression, is brought to life again in this the visible symbol of all those gentle services upon which family and neighborhood life depend. There are few sweeter words than that of neighbor, few greater satisfactions than being a member of a community conscious of itself.

Great cities are nowadays threatened by their size, not only through the hazards of mass existence shown in our crowded streets and still more in the stifling tenements, but by the disintegration of social relationships among neighbors, and the lack of touch between the citizen and his servants in public employ.

We have long been accustomed to the friendly school building, the library, the church centers that bind neighborhoods with a common interest, and it has been only within the past twelve years that our rapidly spreading respect for medical science and the services of health protection has developed a call for the neighborhood house of health. Here we have a service station, distributing currents of protection, circulating friendly service, advertising the most unselfish of commodities — a better quality and greater quantity of life. Here is the year round office of the practitioner of health, the district health leader.

On this occasion Boston has scored priority in a notable health accomplishment, as her officers or her citizens have on numerous occasions in the past.

For the first time on this continent a quarantine was established when the town officers of Boston, in 1678, forbade the unloading of cargo or debarkation of passengers or crew from ships which had brought smallpox with them from England.

School medical inspection began, for the United States, in this

city. A public clinic organized for the study and prevention of the hazards of occupation was first accomplished in Boston to the everlasting benefit of the wage earners throughout this country.

Here and now we have that fortunate combination of private generosity, faith in public officials, and administrative ability among technical services, by virtue of which the first district building erected by a city government is devoted exclusively to the use of official and private health agencies.

This signifies much more than the humanizing of a central bureaucracy, which health departments tend to become. We have this building as a token of widespread belief that the nearer public service come to the householder and his child, the stronger is the faith in democracy, the greater is the trust in elected officers. This is more than a new facility of and for the city government, it is an expression of hospitality by the officers who fear the mandate of the voters, to the volunteers who have so often blazed a path of health with private endeavor, gladly followed later by the more ponderous and burdened government departments.

We are so close to the origin of health centers, so young in our endeavors to bring unity of effort into the local life of unlike districts of our cities, that it is easy to mark the steps of progress. Appearing first across the Alleghanies where a resourceful leader in the tuberculosis campaign gave Pittsburgh the example of which could be expected from a common meeting place and office of the volunteer servants of the sick, we see a similar idea in Milwaukee devoted to the saving of babies' and mothers' lives, Philadelphia, New York and Cincinnati testing, approving and adding to the plan.

Not until 1914 was there any evidence that this glimpse of a new method in health administration had opened out the minds of health officers. Down in a tenement store of Division street in New York's Ghetto, in the shadow of one block where still almost a thousand persons crowd the acre, the first experiment station under municipal auspices was started as a health center, with a desk and chair where the visiting nurse and the charity worker could take turns at the 'phone and swap notes on common problems with the district physician and the sanitary inspector. The germ of this embodiment of local health administration was contained in those cramped quarters.

In the same year, Buffalo made use of district dispensaries with the same idea, and in 1915 Cleveland put its city health stations on a district basis. But it has remained for private generosity, the imagination and creative loyalty and experience of volunteer health agencies of Boston, to clothe the idea with the enveloping beauty of architecture, and breathe into the faint hopes of others a spirit and

practical organization which promptly takes the present project out of the class of experiment and places it among the permanent features of civic government.

What is to be the purpose? How will organization be developed? What are the methods to be evolved out of the present venture?

For purposes we have the translation of the quickly following facts of science into language, habit and use of households, interpretation by the busy messengers of health, of theory and practice of life in terms of kitchen, playground and nursery. From this welcoming, receiving station, as full of wisdom as this room is of the flooding sunshine, it will be the purpose of the doctor, nurse and all variety of friendly visitors to distribute as rapidly the good news of living as in the past the hurrying ambulance has raced with death through the streets. It will be the purpose of the health officer, the district agent of city service to use this as a transforming station, to short circuit the knowledge of mankind for the better illumination of his local community.

The organization comes ready to hand, simple and practical from the lessons of well-tried executive practice. Each public and private health function will be served as if by an embryo bureau of a central government through a personnel that deals directly with each household, and all guided by the district health officer, the community physician.

The methods will be those of education, not enforcement, persuasion, not authority, of example, not of threats.

In searching for suitable words to express the soul of this unit I came upon these verses of that great sanitarian, the wise physician, the poet of American Medicine, to whose science and teaching we owe the saving of whole armies of the mothers of the land, Dr. Oliver Wendell Holmes.

"As Life's unending column pours,
Two marshalled hosts are seen —
Two armies on the trampled shores
That Death flows black between.

One Marches to the drum-beat's roll,
The wide mouthed clarion's bray,
And bears upon a crimson scroll,
'Our glory is to slay.'

One moves in silence by the stream,
With sad yet watchful eyes,
Calm as the patient planet's gleam
That walks the clouded skies.

Along its front no sabres shine,
No blood-red pennons wave;
Its banner bears the single line,
'Our duty is to save.' "

And if I may be pardoned the flight of fancy, let me say that while we have in tumultuous and often bloody manner declared our independence in religion, in education, in government, we still await the revolution in thought and action which will culminate in a declaration of freedom from disease. Let this building prove to be the Faneuil Hall of Health.

Doctor Vincent's address was as follows:

In grateful contrast with the acrimony, clamor and clashing interests of the culminating campaign, we are met in peace, concord and good will to open formally to the citizens of this district their own House of Health. Here the city's official staff and the workers of many voluntary societies will put at their service resources of knowledge, skill, counsel and friendliness.

This event follows closely others which have brought new distinction to this historic city. A year or more ago the opening of the Thorndike Memorial notified the country that Boston regards municipally supported medical research as essential to the best care of the city's sick. Only the other day a splendid new wing of the City Hospital was put in service. The recent taking over by the city of health work which had been developed under private auspices is highly significant. Progress in municipal medical care and protection of the people's health is becoming a Boston habit.

Dr. Haven Emerson has given an informing account of health center development and has clearly described the purpose, organization and methods of this relatively new social agency. It remains for me to suggest and to characterize briefly some of the meanings with which this ceremony is fraught.

We celebrate: The generous gift of a loyal private citizen to his municipality; the wise statesmanlike decision of trustees to use this gift first of all for the public health; the leadership of the Mayor in advocating the plan and in securing guarantee of maintenance from public funds; the transfer to municipal control of health services built up by voluntary effort; the continued co-operation of municipal and of nonofficial agencies; emphasis upon prevention of disease rather than upon medical treatment; the creation of a model institution which will have a nation-wide influence; a concrete expression of community spirit.

George Robert White gave evidence of his loyalty to Boston during his life. The Massachusetts School of Pharmacy building, for example, was his gift, and testifies to his interest in medicine. But the fund he bequeathed for the direct benefit of the city is notable. He showed confidence in the citizens by vesting the control in five trustees, a majority of whom are municipal officials. He

shrewdly limited gifts to capital expenditures for buildings and grounds which must be maintained at public expense. He insisted upon keeping the public informed by the issuing of annual reports. Mr. White had faith in the people of Boston and in its government. He believed that the way to evoke responsibility and fidelity in public officials is to show confidence in them.

Today Mr. White's faith finds justification. The trustees of the fund have shown wisdom and imagination in recognizing the basal importance of the public health and in deciding to create units like this as centers of a city-wide system of co-operative service by both official and voluntary health and social agencies.

To the Mayor this must be a welcome day. He sees the fulfillment of a plan of which he has been a persistent advocate. There have been doubts and obstacles. The public has a fancy for ornamental and conspicuous civic buildings and monuments; it is not easily excited by so dull a thing as health; and it hates to pay taxes. It took faith and steadfastness to carry through this project. Public appreciation and approval may be counted upon as the program develops.

The recent taking over by the Boston Health Department of infant welfare work and nutrition service which had been developed by nonofficial associations, and the setting up of dental prophylactic stations in affiliation with the Forsyth clinic was what ought to be a typical procedure. It shows what a private enterprise should try to do, namely, as Dr. Livingston Farrand has said, to "put itself out of business." While the city was properly giving first attention to sanitation and communicable diseases, the voluntary groups carried on demonstrations in the field of hygiene. Here was a convincing experiment in infant welfare; the city takes it over. It would have been hard to get municipal money to start such work. A going concern makes a quite different appeal.

In this case the private societies did another thing. They helped to create the public opinion which at least acquiesced in this extension of municipal activity and the increase of the Health Department budget. This educational service of nongovernmental agencies has been a powerful influence in the growth of the public health movement throughout this country.

Many people will see dangers in this transfer of work from private to public auspices. They will fear two things especially: The handicap of politics and the substitution of bureaucratic machinery for a more sympathetic human interest.

Both these possibilities may easily be exaggerated. There is a strong and growing sentiment against permitting such professional services as education, health and municipal engineering to be touched by partisan influences. Experience in other cities shows that under

the right leadership municipal infant welfare and similar work can be done well and in a fine spirit. It is fortunate that in this transfer in Boston many of the nurses of the voluntary society are being taken over by the city so that there will be little break in personal relations.

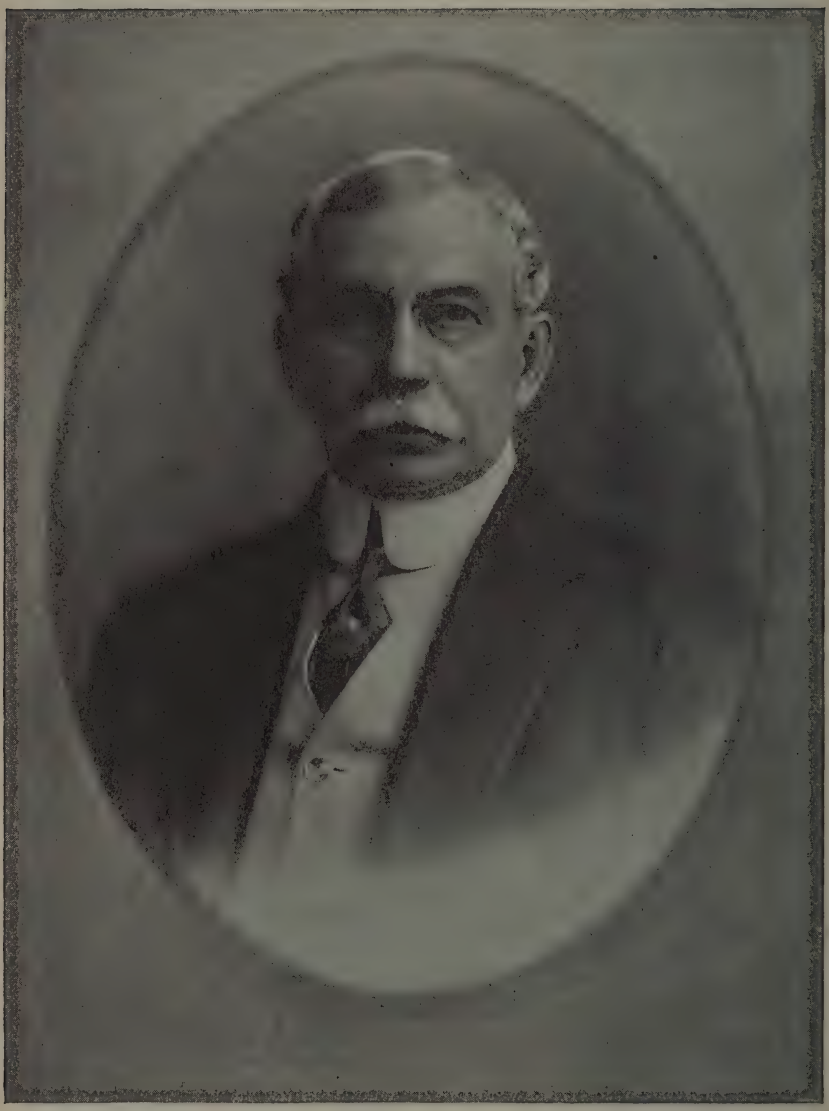
It must be remembered, too, that this unit will house many private societies that will continue their activities. This co-operation between public and voluntary agencies is an impressive feature of the plan. Nowhere has there been a closer, more cordial relation than that established here in Boston. It has aroused interest and emulation in other cities. The way in which this team play was brought about is instructive.

First of all, the private societies got together with the public authorities. They formed the Boston Health League. Here was a sound and natural basis for co-operation. In the next place, the City Health Commissioner was genuinely co-operative. He did not resent private societies; he welcomed them. They in turn loyally supported his administration. This relationship has been strengthened by an unusual but admirable arrangement by which the director of the Municipal Health Unit has at the same time served as executive secretary of the Boston Health League.

Let us hope that this example of well-organized effort will have suggestions for the health activities of the city government itself. Surely the School Board and the Health Department will find some way of working together more closely in carrying out a child health program. Then, too, it is hard to believe that the Health Department will indefinitely continue to maintain five different types of nurses under the auspices of three separate authorities when a unified staff could render more efficient and economical service.

In connection with this co-operative health unit under municipal auspices it is important that the public should understand one thing clearly. A large part of the work will continue to be done by the voluntary societies. They will need generous support from private gifts. That system of community self-taxation which is an American distinction and source of pride will need to be maintained on a high level of generosity. This health unit is a city institution but the city will not pay for all that is done here.

It should be made quite plain that the unit will put its emphasis on preventive effort. It will not be another dispensary. The work for mothers and infants, the nutrition service, the dental prophylaxis, all aim at anticipating and warding off diseases and avoiding defects. Educational campaigns in personal hygiene for adults will seek the same thing. Periodic health examinations will become in time an important feature here. The people of the district will find this a place whose whole efforts will be to keep them well and vigorous.



GEORGE ROBERT WHITE.

This new health unit will have an influence upon the movement in the country. Each city has a contribution to make. The characteristic features of the Boston plan will be studied widely with interest and will be gradually incorporated in the system which seems destined to play a vital part in the health movement of the United States and even of foreign countries. In Prague and Lyons health centers started under American Red Cross auspices are persisting and making progress. You may expect many visitors from home and abroad who will want to see the health units of Boston.

The institution which we dedicate today and others that are to follow are more than health centers. They are symbols of a community ideal which gives one glimpses at least of the city as a whole. Beneath differences in race, religion, economic status there are common interests and a common pride in citizenship. This unit proclaims that the health of each is a concern of all, that no group or section can live to itself alone, that Boston is in a very real sense a comradeship of people who seek to realize Aristotle's conception of a city as a place "founded that men may keep alive, continued that they may live well."

HEALTH UNIT DEVELOPMENT IN BOSTON.

A retrospect of health unit development in Boston is indeed proper in view of the dedication of the first George Robert White Health Unit, the most modern and completely equipped building of its type in the world, for the carrying on of the program of the prevention of disease.

The Blossom Street Health Unit, born locally in the hearts and minds of a few visionary workers interested in public health, was made possible by the hearty encouragement, recognition and financial support from his Honor Mayor Curley, who in 1916 keenly appreciated the value of any endeavor tending to elevate the standard of community health.

Health center development was then in its very infancy, but Boston characteristically was willing to study, to try and do its share in determining what was best for its citizens.

With this in mind, Dr. Charles F. Wilinsky of the Boston Health Department, was sent to study existing health centers in New York, Philadelphia and Buffalo, so that he might bring back a knowledge of the services deemed worth while and essential in a health center program.

A municipal ward room on Blossom street, used until then for political rallies, voting purposes, temporary lodgings, and finally, for

basket ball, was converted into the first health unit. How much this institution was needed locally is borne out by subsequent records of achievement, and briefly might be mentioned the sum total of approximately 100,000 services rendered in the West End section of Boston alone, in 1924, by the Health Department and its correlated group of agencies, public and private.

The justification for the need of health units carrying on a decentralized health program is evidenced by the very change in the character of health department practice. Communicable disease control by quarantine methods and enforcement of the sanitary code by police regulations has been supplemented strongly by health education resulting in people being taught the important value of personal hygiene, proper sanitation, fresh air, sunlight, etc.

Proper sanitation and reducing communicable disease to a minimum are indeed important fundamentals in public health, but much more progress has been made in the advancement of these principles by community health education rather than police method enforcement.

These principles can be advanced much more rapidly by a decentralized effort rather than the promotion of the same from the Health Department office in City Hall. The modern health department today is interested in calling the attention of the people to the existence of physical defects, whether it be that of the teeth, vision, hearing, enlarged glands, dietetic errors, etc., to which the human body is heir. Stress is laid upon the importance of the remedying of these defects so that the individual may develop the resistance which will render him immune to communicable and other diseases. Instead of protecting one against the other, the object is to obtain a maximum of health efficiency.

No phase of public health activity makes such public appeal as the preservation of infant life. The right of every child to be born well and to acquire vigor of body is nowhere denied, and so it is fitting and proper that the modern health department of today must develop the right kind of an infant and child hygiene program.

One must not lose sight of the vast amount of illness and reduction of physical efficiency due to economic conditions and environmental factors. In infant welfare work, in an antituberculosis campaign, and in other types of public health endeavors, we frequently come in contact with poverty and ignorance. No progress can be made in treating these evils until the underlying causative factors are readjusted. Thus closely lie medical, social and health problems and bring social service and welfare agencies closely together with the group interested in public health. Social readjustments have to be made, actual want remedied, and physical defects

corrected. We find that we cannot divorce public health from other matters of community welfare.

The development and carrying on of this program demands the correlated efforts of both the health department and private health and welfare agencies and the constituent groups representing the factors necessary in the development of good health and the solving of welfare problems can best be brought together in a health unit. It is fitting that the health unit shall become the local headquarters for the carrying on of all community efforts. Here we have an institution that is not too far removed from the public and its problems.

Functioning completely and properly, it must include prenatal service, maternity care, infant welfare, child health, dental service, nursing service, mental hygiene, facilities for vaccinations, serotherapy, periodic health examinations for adults, and last, but most important, general health advice and education.

It is indeed proper that Boston, the home of the first medical school inspection as well as the home of the first well-developed public health nursing, should so properly develop the health unit system.

To the well-trained public health worker, the principle of our health unit system is indeed ideal. Emphasis here is on the prevention of disease, and the aim, intent and purpose is to make all services prophylactic in their type, leaving the curative aspect to the general practitioner and the local hospitals. Emphasis here is laid on health and not on disease, and functioning properly its aim is to teach people how to stay well.

We may summarize by saying that the health unit has become the ideal clearing house, and the co-operation and correlation between the private and public health groups has indeed been most admirable with resulting benefit to the local community.

The personal contact between the representative of the various agencies, both public and private, housed at the unit, has developed an agreeable and better appreciation of each other's ability and willingness to carry on the proper health program.

There is an interdependence of the various agencies and that dependence has been taken advantage of with consequent resulting good.

Our development and progress has the indorsement of all of the private and public health agencies, physicians and health educators interested in the health of Boston. What more need or can be said than that the future offers much promise.

The following is a copy of letter received by his Honor the Mayor regarding the accomplishments of the Boston Health Department in the field of Prevention of Disease.

Boston, Mass., October 31, 1924.

Hon. James M. Curley,
Mayor of Boston:

My dear Mr. Mayor,— It seems fitting at this time, when a new North End Health Unit is about to be dedicated, that we should express to you our pleasure and appreciation of certain accomplishments of the Boston Health Department in the field of prevention of disease, and in the raising of health standards through public health education since the appointment of the present Health Commissioner, Dr. Francis X. Mahoney, in February, 1922.

First.— There has been the admirable development of the municipal unit on Blossom street, under the wise and able administration of the present director. The work at Blossom street has demonstrated the value of concentration of public health activities in a district headquarters under municipal direction where a sound program is inaugurated and where the resources of all the agencies, both public and private, are pooled in the interest of public health. The individual citizen has learned to use the center intelligently and to co-operate with the direction in a campaign of community health education. Blossom street may well serve as a model to the new health units which the trustees of the George Robert White Fund are so generously giving to the city.

Second.— The past two years have witnessed an increasing output of public health education in Boston, which is the result of joint effort between all the agencies, rather than the scattered efforts of any one agency, public or private. The Health Commissioner has realized the value of team play in public health work, and under his leadership the official and unofficial agencies have been brought together as never before through group meetings, through individual conferences and through public meetings. The private agencies have come to welcome the duly constituted official authority of the city, and have voted their support to the official program. The medical profession and the university teaching forces have been represented not only in these associations of health agencies, but also through a strong medical advisory committee to the Health Commissioner, appointed by your Honor in May, 1922.

Third.— There is the inauguration of a Division of Child Hygiene, in June, 1923, and the subsequent assumption of a complete child hygiene program for the city. Until September 1, 1924, the Community Health Association had ably carried on a large proportion of the child hygiene work in the city as a part of the family health program. On that date, your Honor's prompt decision made it possible for the city to take over this important work in the most crowded districts, contemplating an extension of the program to the city as a whole. The provision for an advisory committee of

pediatricians for the child hygiene work, and as far as possible for retaining the medical and nursing personnel already engaged in the work seems to us particularly wise. We look forward to a child hygiene program co-ordinated with a chain of health units that will set a new standard for official public health work.

Fourth.— An allusion to the preventive work of the Health Department during the last two years would not be complete without mention of the diphtheria-prevention campaign begun by the present Health Commissioner in May, 1922. It is no mean accomplishment that since that date through the Health Department not less than 37,000 school children have been immunized, while through the Schick test 36,000 additional have been regarded as naturally immune to the disease. The value of the educational work which has accompanied the Schick test and immunization is a step forward in more general public health education, without which the most elaborate measures for disease prevention will fail.

We congratulate you, Mr. Mayor, and through you the Health Commissioner, Doctor Mahoney, upon the very evident program made in the advancement of public health work in the city.

Yours respectfully,

David L. Edsall.
Richard C. Cabot.
Robert B. Osgood.
Horace Morison.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during October. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.54	3.66	99
Allen, Fred H.	12.79	3.81	20
Anderson, Oscar H.	12.45	3.80	71
Antetomasso, Peter	12.50	3.80	9
Barry, Michael F.	12.18	3.76	14
Barron, Clarence W.	13.65	4.65	8
Bemis, Estate of Henry E.	12.39	3.72	18
Bergmann, John H.	12.70	4.00	47
Bolio, William J.	13.02	4.46	281
Bowditch, Estate of E. F.	12.19	3.67	14

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Brandley, Thomas J., & P. J.	12.76	3.80	6
Buxton, William	13.25	4.25	10
Casey, James D.	13.02	3.90	12
Cashin, J. F.	12.62	3.86	46
Cedar Hill Farm, Inc.	13.12	4.30	10
Chapin, George L.	12.68	3.85	24
Childs Brothers Company	12.24	3.60	33
Clapp, Frank L.	12.34	3.60	40
Clark, Levi	12.39	3.85	16
Cohen, Benjamin	12.64	3.85	30
Corkery, John H.	12.50	3.66	17
Creedon, Raymond	12.67	3.82	15
Cummings, F. S., Company	12.24	3.65	13
Cunningham, Paul	12.84	3.85	25
Cusick, William F.	12.44	3.65	52
Deerfoot Farm Milk Company	12.64	3.56	22
Denehy, Timothy	12.77	4.20	96
Driscoll, William B., Company	12.49	3.65	18
Duggan Brothers	12.80	3.85	92
Edgerly, Frank S.	12.60	3.72	14
Elm Spring Farm Milk Company	12.28	3.60	28
J. English & Sons	12.96	4.05	17
Ferguson, Malcolm D.	12.72	3.87	104
Floyd Milk Company	12.52	3.85	80
Garfield, Mason	14.54	5.20	12
Garvin, Charles E.	13.58	4.63	11
Giroux, J. E., & Co.	12.48	3.78	30
Griffin Brothers	12.76	4.10	16
Griffin, Joseph L.	12.71	3.80	17
Gushee, Chester W.	12.44	3.70	10
Hagar, J. M., & Sons	12.74	3.87	20
Hancock, T. G., Company	12.44	3.86	24
Herlihy Brothers Company	12.48	3.85	62
Hickey, Martin J.	12.58	3.81	230
Holden, John E.	12.60	3.87	8
Holland & Cosgrove	12.48	3.77	52
Hood, H. P., & Sons, Inc.	12.52	3.81	50
Hutchinson, Frank C.	12.66	3.60	14
Jones, William T., Company	12.49	3.71	16
Kendall Brothers Company	12.48	3.72	31

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Kennedy, Robert J., Jr	12.82	4.00	20
Kingston, Samuel	12.76	4.15	8
Klawa & Freeman	12.46	3.46	21
Knapp, George J	12.85	3.83	67
Kozlofsky, Fedora	12.81	3.72	12
Lang, Michael J	12.49	3.76	261
Larsson, Charles	12.53	3.65	13
Lincoln Farms, Inc	12.16	3.40	12
Lyndonville Creamery Association	12.72	3.72	28
Manning, Peter E	12.05	3.65	346
Maple Farm Milk Company	12.46	3.72	132
McAdams, John F	12.32	3.67	108
McKernan, John	12.72	3.88	19
Moore, Peter	12.55	3.72	36
Munchbach, George	12.36	3.51	282
Newton & Pope	12.61	4.03	18
Noble, William F., & Sons	12.78	4.06	12
Raycraft, Benjamin A	13.06	4.20	23
Robinson, Albert J	12.64	3.90	101
Robinson, James A	12.21	3.45	19
Runkle, John C	13.46	4.55	36
Schuster, Adam	12.31	3.60	25
Seven Oaks Dairy Company	12.47	3.85	19
Shick, Jacob	12.81	3.83	344
Smith & Lynch	12.43	3.63	19
Somerset Farms Milk Company	14.83	5.70	9
Sterling Farms Milk Company	12.70	3.76	18
Stone, Howard L	12.53	3.87	24
Stuart, Wallis E	12.70	3.83	18
Sullivan, John D	12.67	4.05	21
Sullivan, John L	12.84	4.00	98
Turner Centre System, Inc	12.82	3.91	18
Vartanian, Gazer	12.30	3.80	56
Vartanian, Setrag	12.22	3.72	156
Walker-Gordon Milk Laboratory	12.96	4.30	18
Ware, George H	12.53	3.90	18
Weiler, E., & Sons	12.63	3.70	24
Werner, F., & Co	12.61	3.96	84
Westwood Farm Milk Company	12.50	3.75	13
White Brothers	12.62	3.80	193

Name of Dealer.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Whiting Milk Companies	12.28	3.70	44
Wittenberg & Recks	12.06	3.58	288
Whittemore, Warner D.	12.49	3.88	27
Wiswall, Granville A.	12.56	3.80	78
Woodland, Charles L.	12.75	3.85	108

CHAIN STORE MILK.

Name of Dealer.	Supplied By.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.41	3.82	20
The Cloverdale Company	Turner Centre System, Inc.	12.46	3.85	35
Co-operative Grocery Company.	J. M. Hagar & Sons, Inc.	12.67	3.80	40
J. T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.56	4.05	12
Economy Grocery Company	Whiting Milk Companies	12.32	3.67	243
First National Stores, Ltd.	United Farmers Co-operative Creamery Company and Whiting Milk Companies.	12.63	3.85	12
Morgan Brothers Company	Morgan Brothers Company and Whiting Milk Companies.	12.79	4.05	19
M. O'Keefe, Inc.	J. M. Hagar & Sons, Inc.	12.61	3.80	46
Rose Tea Company	Whiting Milk Companies	12.51	3.80	30
M. Winer & Co.	Hyman Winer	12.87	3.62	40

FIRST AID HINTS.

Capt. G. R. C. Fisher gives the following advice in "Manufacturers' News:"

"1. Never permit the injured to be moved until you have discovered, to some extent, at least, the nature of the injury.

"2. If the victim is unconscious, don't revive until you have gone over the body to find the injury, attended to it, and moved the patient. This will save the conscious suffering and help to conserve vital energy.

"3. If the victim appears to be dead, don't conclude that it is so; give him the benefit of the doubt and treat as alive until the doctor has decided to do otherwise.

"4. In all cases of severe bleeding, lose no time in controlling the hemorrhage.

"5. Always provide plenty of fresh air, keep the crowd back, loosen tight clothing, fan him, hold smelling salts to the nostrils for a moment while he breathes in, sponge the face with cold water.

"6. If the face is pale, keep the head low; if it is red, as in sunstroke or apoplexy, place the victim in a semi-sitting position.

"7. In all emergencies, accidental or otherwise, watch out for nervous shock. The signs are quite positive; pale face; fixed, staring eyes; dazed expression of features; cold, clammy skin, feeble breathing, and sometimes sighing. Lay on the back, loosen tight clothing, cover with blankets, put smelling salts to nostrils momentarily, and when able to swallow give one-half teaspoonful of aromatic spirits of ammonia in one-half cup of water, being careful not to choke the patient.

"8. If the skin is broken, protect with sterile dressing; if a fracture, with the bones sticking through the skin, don't move the limb, but support at point you find it so and cover the wound with a sterile dressing; check severe bleeding, if any.

"9. If a case of poisoning, give an emetic to produce vomiting — salt and warm water. If the poison is an acid or strong alkali such as ammonia or lye, don't make the patient vomit, but kill the action of the acid with a weak alkali, such as lime water or strong salaratus water (baking soda); kill the strong alkali poisoning with a mild acid, such as vinegar or lemon juice, and, in both instances, follow with oil — lots of it.

"10. In treating a burn, always be quick to smother the burned part and cover with cloth soaked in a strong salaratus water; keep cloth wet with this water.

"11. Don't use alcoholic liquor as a stimulant. It is dangerous. The true stimulant is aromatic spirits of ammonia. For internal use, the same as in No. 7. For external use sprinkle a few drops on a cloth and hold to nostrils for a moment as patient inhales."

Captain Fisher quotes Secretary Hoover as saying: "For every dollar paid out by compensation insurance companies three are lost somewhere between the employee and the employer."

— Dr. Evans in the *Boston Herald.*

DAYLIGHT SAVING.

The so-called daylight saving plan tends to promote health of the people of Boston. The importance of sunlight in promoting health and in curing many obscure disease conditions is only begin-

ning to be scientifically appreciated. Daylight saving operates to give the people of Boston an opportunity for an hour out of doors in the sunlight which they would not otherwise get, It is all very well to theorize that the same amount of out of door sunlight might be secured in some other way, but unfortunately it is not secured without the adaption by the community of a daylight saving schedule. It is argued that daylight saving should be discarded because it makes it difficult for some parents to put their children to bed when they ought to go. The Health Department keeps statistics which are very sensitive to anything operating unfavorably on child health in the city, but thus far there is nothing to indicate that daylight saving has anything but a favorable effect on the health of children. It might be suggested to those households which are dominated by the whims of children rather than proper parental control that the fathers or mothers might take measures to inform themselves how parents manage in countries like Scotland or Norway or Sweden, when during the summer months it is daylight almost until midnight. Eastern Ohio runs on the same clock time as Eastern Massachusetts the year around. This in itself serves to give Eastern Ohio about an hour more of daylight in the afternoon than Eastern Massachusetts, regardless of daylight saving schedules. There are parents of children and farmers in Ohio who seem to be getting along without complaint. It would seem fitting that certain Massachusetts parents and farmers who seem to be the principal objectors to daylight saving here should find out how Ohio people manage with their extra hour of daylight.

Besides the directly beneficial effects of out of door sunlight on the human body daylight saving practically gives opportunity for an hour for out of doors work or recreation which our people do not otherwise get.

It means not only the physical benefit which may come to men, women and children from an hour of play in the open air, but it gives opportunity for the recreation and enjoyment which comes to the city worker from the cultivation of a garden, a form of enjoyment which is shut out to the city worker without daylight saving.

THE RIPE OLIVE SURVEY OF 1924.*

During the summer of 1924 a survey was made of over eight hundred official samples of ripe olives from thirty states, the District of Columbia and Porto Rico. These represent about twenty different

*Abstracted from paper read before the American Public Health Association, Food and Drug Section, by Charles Thom, H. C. Colson and L. H. James.

packers. The inspectors followed directions in only forwarding spoiled or questionable material, where practically all of them were offered for sale. The samples are not reported as representative of the stocks of ripe olives on hand but as products offered for food purposes, which are in themselves significant.

Spoiled or questionable products were not confined to the packs of particular companies or to any particular region or city. All regions surveyed yielded containers of ripe olives showing some type of objectionable condition.

Spoilage included scarcely describable odors, metallic odors, sour, butyric and putrid odors, as well as occasional disintegration. Some containers showed markedly colored liquid; some had lacquer partly dissolved or entirely removed in spots; others had suffered corrosion of the metal, varying from etching of the interior of the can to almost complete disappearance of tin wherever the olives or their liquor came in cantact with the metal.

Information obtained from the trade indicates that many of these samples had remained upon the dealers shelves for several years. In some cases the period was known to the dealer. Again the entire record had been lost. So long as corrosion had not perforated the can, many dealers seemed willing to keep them on sale.

Bacteriological examination correlates satisfactorily with inspection as to physical soundness, in showing that canned ripe olives which are free from swell, from abnormal odor, or other marks of spoilage are not dangerous. B. botulinus was not found in any sample. The investigation furnished no ground for attributing special danger to the consumption of canned ripe olives if reasonable care is exercised to exclude spoiled products from sale or use.

In spite of the skill and care exercised by the packer in the selection, processing and inspection of his product, defective containers of food do reach the retailer. Well packed products also deteriorate in the lines of distribution. To prevent the sale and consumption of such spoiled products, a campaign of education as to the criteria of soundness in canned food should be carried through every grade of dealer and to the consumer. As a part of the information needed to prevent the accumulation of old and progressively deteriorating material upon the dealer's shelves, every can should be plainly marked with the year of the pack, with some limit of guaranty or should in some other manner furnish adequate information upon which the dealer and consumer may avoid the handling of such unfit products as we have handled by hundreds during this survey.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING OCTOBER, 1924.

Classification.	Number.	Percentage.
	Oct.	Oct.
After death	6	14.29
Seven days or less	3	7.14
Eight to fourteen days, inclusive	2	4.76
Fifteen to twenty-one days, inclusive	—	—
Twenty-two to thirty-one days, inclusive	—	—
Within First Month	11	26.19
Within second month	7	16.68
Within third month	5	11.90
Within fourth month	1	2.38
Within fifth month	—	—
Within sixth month	—	—
Within seventh month	2	4.76
Within eighth month	1	2.38
Within ninth month	1	2.38
Within tenth month	—	—
Within eleventh month	2	4.76
Within twelfth month	—	—
Within First Year Preceding Death	30	71.43
Within second year	3	7.14
Within third year	1	2.38
More than three years	8	19.05
Totals	42	100.00

SUMMARY OF THE WORK, OCTOBER 1, 1924.

BUREAU OF ADMINISTRATION.

	Oct.	Sept.
Hearings authorized	1	1
Prosecutions ordered	7	15
Offensive trades approved	0	3
Legal notices	234	253
Forcible removals	2	0
Orders	1	0
Conferences	0	2

	Oct.	Sept.
Personnel:		
Temporary	1	0
Provisional	3	4
Permanent	3	3
Resignation	0	1
Leave of absence	3	0
Temporary employment extended	1	0
Promotions	7	0
Official visits authorized	7	1

LICENSES, PERMITS, ETC., ISSUED.

	Oct.	Sept.
Burial permits	992	880
Milk licenses	184	193
Pedlers' licenses granted,	50	66
Hen licenses granted	34	12
Stable hearing	1	0
Stable permit granted,	0	1
Stable permit granted provisionally	1	1
Hen license refused	1	1
Stable permits extended temporarily	0	1
Poultry licenses granted,	34	12
Grease licenses granted,	5	0
Undertakers' licenses renewed	1	0
Denatured alcohol licenses	5	3
Manicure-massage: Granted	70	77
Dumps	0	1
Lying-in Hospitals license approved	6	1

MEDICAL DIVISION.

HEALTH UNIT (Blossom Street).

	Oct.
HEALTH DEPARTMENT:	
Work Performed by Medical Inspector:	
Visits made by medical inspector in the district	32
Vaccinations performed by medical inspector	67
Number of vaccination certificates issued	40
Antitoxin, antityphoid, Schick tests, and toxin antitoxin administered	5
Number of children examined for camps and day nurseries	20
Dental Service:	
Number of operations	967
Number of dismissals	92
Number of children treated,	602
Nutrition Service:	
Number of conferences	11
Conference attendance	113
Number of home visits	147
Posture Classes:	
Number of classes	3
Attendance	49
Cooking Classes:	
Number of classes	2
Attendance	13
Nurses' Visits:	
Communicable disease visits by nurses in district	136
Miscellaneous:	
Complaints of insanitary conditions	19
Number of persons given health and other information	480
City visitors	15
Out of city visitors	20

	Oct.
COMMUNITY HEALTH ASSOCIATION:	
General Division:	
Home visits by nurses	727
Posture Clinics:	0
Number of clinics	0
Attendance	0
Child Hygiene Division:	
Number of conferences	8
Conference attendance	632
New babies at conferences	65
Home visits to babies	1,364
Children of school age examined	49
BOSTON DISPENSARY:	
Calls by district physician	26
BOSTON SANATORIUM:	
Calls made by nurses in the district	1,002
JEWISH WELFARE CENTER:	
Nutrition conferences held	0
Attendance	0
Nutrition classes	0
Attendance at classes	0
RED CROSS (Home Nursing Classes):	
Number of classes	2
Attendance	24
STATE DEPARTMENT MENTAL DISEASES:	
Habit Forming Clinic:	
Number of clinics	4
Attendance	27
Home visits	46

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, OCTOBER 1, 1924.

Syphilis.

Current cases under investigation October 1, 1924	15
New cases assigned during the month	18
Total	33

Disposition of Cases.

Located:	
Placed under treatment	12
Under treatment	0
Not located:	
Search abandoned	6
Under investigation October 31, 1924	15
Total	33

GONORRHEA.

Current cases under investigation October 31, 1924	35
New cases assigned during the month	49
Total	84

Disposition of Cases.

Located:	
Under treatment	8
Placed under treatment	12
Further treatment unnecessary	0
Not Located:	
Search abandoned	26
Fraudulent use of name	0
Under investigation October 31, 1924	38
Total	84

SUMMARY.

Current cases under investigation October 1, 1924	50
New cases assigned during the month	67
Total	117

Disposition of Cases.

Located:	
Under treatment	8
Placed under treatment	24
Further treatment unnecessary	0

Not Located:	
Search abandoned	32
Fraudulent use of name	0
Under investigation October 31, 1924	53
Total	117
Form letters mailed to above patients	54
Form letters unclaimed returned from post office	33
Form letters accepted by patients	21
Venereal disease complaints:	
New cases	9
Under investigation October 1, 1924	7
Disposition of complaints:	
Placed under treatment	4
Under treatment	1
Unable to locate	2
Referred to Police Commissioner	3
No evidence of disease	1
Under investigation October 31, 1924	5
Visits by investigators	362

BUREAU OF COMMUNICABLE DISEASES.

	Oct.	Sept.
Visits:		
By medical inspectors,	692	484
By veterinarian	145	216
By investigator	266	281
By nurses	1,881	1,422
Cases brought to Boston for treatment	90	54
Deaths investigated	20	16
Nurses' Schick activities,	9,434	0

	Oct.	Sept.
Medical inspector's activities:		
Schick tests	3,550	6
Schick readings	3,323	1
Toxin-antitoxin injections	2,561	24
Vaccinations	65	465
Antitoxin injections	11	0

CHILD HYGIENE DIVISION.

	Oct.	Sept.
Total number of all visits	*11,480*	*7,328*
Visits to new cases	2,516	1,145
Visits to old cases	8,964	5,824
Ophthalmia cases:		
Visits by Child Hygiene Division	179	129
Visits by Health Unit	0	0
Infant mortality investigations	125	98
Maternal death investigations	61	46
Miscellaneous	0	86
Cooking classes	2	
Poster classes	3	
Baby Conference Stations attended	228	
Nutritional conference Stations attended	35	
Instructive conferences attended	151	
Special visits	9	
Dietitian home visits	184	

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Oct.	Sept.
New reports	4,327	3,543
Stores inspected	4,811	3,885
Sanitary defects remedied	151	116
Complaints at office	53	51
Referred to Sanitary Division	13	18
Milk applicants	141	128
Peddlers:		
Applications for licenses approved	5	71
Vehicles inspected and approved	552	529
Court cases	9	20
Convictions	5	9
Fines	$240	$270
Continued	1	10
Discharge	1	1
Filed	1	0
Laboratory Examinations:		
Bacteriological	4	1
Chemical	5	2

CONDEMNATIONS.

Requested.		Beef trimming	424 pounds
Bread	11 loaves	Bread	23 loaves
Candy	50 pounds	Flour	½ barrel
Coffee	125 pounds	Fowl	21½ pounds
Coffee jelly	3 packages	Horseradish	17 bottles
Eggs	60 dozen	Lamb	33 pounds
Fish	60 cans	Lettuce	576
Crackers	136 pounds	Livers	8
Jello	36 packages	Mayonnaise	23 bottles
Milk	33 cans	Melons casaba	14
Miscellaneous	39 cans	Mustard	71 bottles
Miscellaneous	3 barrels	Olives	170 gallons
Oysters	32 gallons	Peanuts	50 pounds
Peas	147 cans	Peaches	3 baskets
Raisins	40 packages	Pears	1 bushel
Rice	2 pounds	Peppers	2,400 cans
Sugar	96 pounds	Plucks	2
Tea	125 pounds	Pork	10 pounds
Tea	35 packages	Poultry	814 pounds
		Veal	87 pounds
Not Requested.		Walnut meat	346 pounds
Broilers	22¾ pounds		
Bear	150 pounds		

LIVE STOCK INSPECTION (Brighton Abattoir).

	Oct.	Sept.		Oct.	Sept.
Cattle inspected	743	284	Sheep inspected	2	9
Calves inspected	1,489	1,375	Parts condemned (lbs.)	7,258	4,360
Swine inspected	4,743	3,916	Animals condemned	6,977	5,584

DAIRY DIVISION.

	Oct.	Sept.		Oct.	Sept.
Total inspections	1,090	1,552	Inspection of milk plants and licensed dealers	331	340
Dairies inspected	672	592	Bacteriological examinations	47	586
Scoring above 50 *	418	395	High bacterial counts investigated	14	17
Scoring below	254	197	Country creamery inspections	16	13
With milk rooms	394	384			
Without milk rooms	278	208			
Inactive	10	4			
Total cattle inspected	9,890	7,615			

BUREAU OF MILK INSPECTION.

	Oct.	Sept.		Oct.	Sept.
Chemical inspection of:			Ice cream	209	89
Milk	1,514	1,280	Bottles	88	0
Vinegar	172	74	Cases	104	0
Eggs	0	1	Court cases	21	38
Ice cream	1	0	Fines	$730	$735
Bacteriological examination of:					
Milk	544	517			

SANITARY INSPECTION.

	Oct.	Sept.		Oct.	Sept.
Original inspections	2,043	1,326	Complaints	718	749
New reports	2,766	2,301	Court cases	7	4
Reinspections	7,407	5,321	Fines	0	2,885
Legal notices served	202	199			

BACTERIOLOGICAL LABORATORY.

	Oct.	Sept.
Diphtheria	1,315	637
Tuberculosis	280	237
Typhoid	56	60
Gonorrhea	680	622
Gonorrheal ophthalmia	60	45
Syphilis	1,627	1,396
† Other examinations	10	31
Bacteriological examinations of milk	544	519
Bacteriological examinations of ice cream	209	89

* Passable mark.

† Malaria 7; genito-urinary tuberculosis, 2; dark field examinations, 3; smears for Vincent's, 1; urine for typhoid, 2; feces for typhoid, 2; smear for T. B., 1; culture for virulence, 1; cat's head for rabies, 1.

VITAL STATISTICS, OCTOBER, 1924.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING OCTOBER, 1924, WITH COMPARATIVE FIGURES FOR OCTOBER, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
ALL CAUSES:						
Total deaths	859	875	—16	13.27	13.63	—.36
Nonresidents deducted	676	712	—36	10.44	11.09	—.65
BY AGE:						
Under one year	107	104	+3	1.65	1.62	+.03
One year to four years, inclusive	31	35	—4	.48	.54	—.06
Sixty years and over	355	328	+27	5.48	5.11	+.37
BY SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy	64	61	+3	.99	.95	+.04
Arteriosclerosis	30	32	—2	.46	.50	—.04
Heart disease	179	150	+29	2.76	2.34	+.42
Nephritis, chronic	45	51	—6	.69	.79	—.10
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births	1,656	1,612	+44	25.58	25.11	+.47
b. Registered stillbirths	48	44	+4	.74	.68	+.06
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	28.17	26.57	+1.60
c. Deaths of mothers from causes incident to childbirth	9	8	+1	.14	.12	+.02
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	5.28	4.83	+.45
Deaths of children in first year of life	107	104	+3	1.65	1.62	+.03
Deaths in first year per 1,000 live births,	.....	.....	.....	64.61	64.52	+.09
VIOLENCE:						
Accidents	49	59	—10	.76	.92	—.16
Homicides	5	5	—	.08	.08	—
Suicides	6	16	—10	.09	.25	—.16
MISCELLANEOUS:						
Alcoholism, acute or chronic	15	8	+7	.23	.12	+.11
Broncho-pneumonia	38	32	+6	.59	.50	+.09
Cancer	93	96	—3	1.42	1.49	—.07
Cirrhosis of the liver	4	4	—	.06	.06	—
Diabetes mellitus	23	17	+6	.35	.26	+.09
Diarrheal diseases, children under two years of age	15	10	+5	.23	.15	+.08

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases..	15	13	+2	.23	.20	+.03
Deaths.	—	3	—3	—	.05	—.05
Cerebro-spinal meningitis.....Cases..	5	5	—	.08	.08	—
Deaths.	1	3	—2	.015	.05	—.035
Diphtheria.....Cases..	192	335	—143	2.97	5.22	—2.25
Deaths.	7	17	—10	.11	.26	—.15
Influenza.....Cases..	7	2	+5	.11	.03	+.08
Deaths.	2	1	+1	.03	.015	+.015
Measles.....Cases..	82	104	—22	1.27	1.62	—.35
Deaths.	2	—	+2	.03	—	+.03
Pneumonia (lobar).....Cases..	106	73	+33	1.64	1.14	+.50
Deaths.	34	30	+4	.53	.47	+.06
Scarlet fever.....Cases..	217	189	+28	3.35	2.94	+.41
Deaths.	2	2	—	.03	.03	—
Tuberculosis (pulmonary).....Cases..	161	167	—6	2.49	2.60	—.11
Deaths.	53	49	+4	.82	.76	+.06
Tuberculosis (other forms).....Cases..	22	29	—7	.34	.45	—.11
Deaths.	5	16	—11	.08	.25	—.17
Typhoid fever.....Cases..	9	21	—12	.14	.33	—.19
Deaths.	3	1	+2	.05	.015	+.035
Whooping cough.....Cases..	81	25	+56	1.25	.39	+.86
Deaths.	1	1	—	.015	.015	—

The for-going tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1924 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

CHRISTMAS HEALTH SEALS.

The Christmas Health Seal of 1924 is thoroughly up to date in that it recognizes and presents the modern ideas of better health through health education. Its principal figure is that of the spirit of education holding aloft the torch of enlightenment and supporting the shield which bears the insignia of the anti-tuberculosis movement, the double-barred cross. Its ground color is the blue of hope with the figure gowned in yellow the color of sanitation, with the cross of course in the red of Conquest

Seal Sale time is naturally a time for the reporting by the different tuberculosis agencies of the work accomplished during the year.

That of the Boston Tuberculosis Association is very important, including as it does a number of new projects. The Prendergast Preventorium has continued during the year as the major activity, caring continuously for thirty little girls threatened with tuberculosis but not as yet showing any symptoms. It has been supplemented this year by a large summer camp which admitted both boys and girls to the number of one hundred and retained them in the open air life with good food and good care during the hot weeks of the summer. Follow-up in their homes will avoid as much as possible the likelihood of a return of the unfavorable conditions of underweight which characterized them on admission to the camp.

Other activities include the Institute for Nurses, lectures to physicians the general information bureau, the distribution of literature, the maintenance of the Modern Health Crusade, the use of the "Little Church on Wheels," and the Placement Bureau. This important function, which is pioneer work in the country, seeks to find "jobs" for persons discharged from sanatoria, suitable for them in their condition, which seldom permits of a return to the previous employment.

All of these activities are supported by the Christmas Seals, and their value makes it necessary for the work to be continued through a liberal purchase of the little stamps, for which one can find many uses during the season of the Nativity.

1559

MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 13. BOSTON, DECEMBER, 1924. No. 12

TYPHOID FEVER.

Thirty years ago it was customary to designate a considerable portion of hospitals in American cities as typhoid fever wards. It was expected that these wards would be occupied the entire year by typhoid fever patients and during the autumn be filled to overflowing. Gradually, the number of cases of typhoid fever which hospitals were called on to provide for has grown less and less. The old typhoid ward has completely disappeared, and it has become a matter of concern with the teachers in medical schools to find enough cases of typhoid fever to familiarize medical students with the clinical appearance of the disease.

There is nothing mysterious about the disappearance of typhoid fever. Typhoid fever is caused by the contamination of food and drink by human excreta, — by excreta from human beings who have the causative organisms of typhoid fever in their bodies, whether such human beings be sick with the disease or are "carriers" who are apparently well.

The disappearance of typhoid fever has been due to the gradual lessening in this country of opportunities for the contamination of food and drink by human excreta. In military life vaccination

against typhoid fever has been chiefly responsible for its prevention but vaccination has not been an important factor in bringing about its disappearance in our civilian population.

Food or drink may be contaminated by human excreta because of the contamination of public or private water supplies by drainage containing human excreta. Contamination may occur as the result of the use of human excreta as a garden fertilizer. It may also occur indirectly through the contamination of food and drink by dirty human fingers or by flies.

Lessened opportunities for contamination and the consequent decrease in typhoid fever have been due to measures which have been generally taken in the last thirty years to protect public and private water supplies from the possibility of contamination or to disinfect the water by chlorination when measures to protect against contamination have not appeared to be entirely reliable. The extension of sewerage systems with facilities for the removal of excreta and for the preservation of personal cleanliness in human habitations have also been important in lessening opportunities for the contamination of food and drink. The prompt removal of excreta and the attention which has been given to other phases of community cleanliness have served not only to reduce the danger of the contamination of food and drink by flies, but have tended to reduce greatly the number of flies. The increase in the practice of pasteurizing milk has also been another and a very important factor in the decrease of typhoid fever. Typhoid fever organisms grow and multiply with incredible rapidity in milk. A milk can rinsed with water from a polluted well on a farm may introduce enough typhoid fever germs in the milk, with which the can is afterwards filled, to produce an extensive typhoid fever epidemic in a distant city water, with whose milk supply this can of milk may be mixed.

Just when municipal health officials were coming to look upon the typhoid fever problem as a thing of the past, it has bobbed up again in an unexpected fashion. There has been no increase in Boston during the past year, but in many other large American cities typhoid fever has shown a marked increase both in prevalence and in virulence. There has also been noted a curious tendency for the disease to occur not among the poor, but among the well-to-do and wealthy. This fact has led to a presumption that the cause might be found in a difference in the dietary habits of the poor and the wealthy— that the wealthy might be in the habit of eating uncooked some food which the poor ate cooked, or of eating some possibly contaminated articles of food which the poor did not eat at all. This process of reasoning has naturally brought shell fish, oysters or clams, on the half shell, under suspicion.

Contaminated shell fish have long been recognized as a means of spreading typhoid fever and federal, state and municipal health officials and responsible dealers in shell fish have been united for many years in devising and enforcing measures to protect the public against possible dangers of contracting typhoid fever from eating uncooked shell fish. It has been demonstrated that shell fish taken from sewage polluted harbor flats or costal areas are very likely to harbor typhoid fever organisms. It was also discovered years ago that clams and oysters which were free from such organisms when dug were sometimes infected after they were dug by putting them in water which had been obtained from some sewage polluted source. It was also demonstrated that a living infected oyster or clam tended to free itself from infection in about twenty-four hours if placed in clean running water.

The taking of clams or oysters from known sewage polluted flats is pretty generally prohibited by law and efforts are made to see that such laws are enforced. Nevertheless, there is a good deal of illegal digging and marketing of shell fish from dangerous areas. There is no reason to believe that the practice is any more common now than it has been and if this unexpected reappearance of typhoid fever in many of our large cities be due to this cause the reason why shell fish should suddenly become more dangerous still remains to be explained.

CHLORINE GAS IN THE TREATMENT OF INFECTIONS OF THE RESPIRATORY TRACT.

In the "Bulletin" for May, 1924, attention was called to experiments with chlorine gas in the treatment of colds and other infections of the respiratory tract. The matter was taken up in the "Bulletin" because of the wide publicity given to the apparently beneficial results which had been attained by Lieut. Colonel Vedder and Capt. Sawyer of the Medical Corps of the United States Army by this form of treatment in certain respiratory infections. Their conclusions, as published in the "Journal of the American Medical Association," of March 8, 1924, were based on the treatment of over nine hundred cases.

Public interest in the treatment was stimulated by the newspapers and by manufacturers who devised and marketed apparatus for administering chlorine gas of the dilution recommended. Under pressure from such sources, municipal health department officials in some instances were induced to go outside their legitimate field, and to establish independently of hospitals, clinics for the chlorine treatment of individuals who might apply therefor.

Two municipal Health Department clinics were established in New York City. As a result of the treatment of about 500 cases of different kinds of respiratory infections, the New York Health Department concludes that the claims of Vedder and Sawyer are unwarranted with respect to the usefulness of chlorine gas in any form or at any stage of a respiratory infection. It is to be inferred from the New York report that any apparently beneficial results which Vedder and Sawyer may be able to show are to be attributed to the fact that "when cases (of respiratory infections) do not develop serious manifestations, they tend to improve of their own accord, no matter what method of treatment is employed." The report further states, "we deem their claims (Vedder's and Sawyer's) to be unjustified and deprecate the large and unwarranted claims which have appeared in some places and which have been inspired by those interested in the sale of devices for administering this treatment."

The Boston Health Department resisted some pressure to open similar clinics in Boston. At least nine out of every ten claims of discoveries in the way of more effective methods for the treatment or prevention of disease prove eventually to be unwarranted. It is therefore easy for one to acquire a reputation for superior scientific discernment by simply trying to discredit everything which is brought out as a medical discovery. But while for the reason just stated, the local reputation of the Boston Health Department may have benefited by its attitude toward chlorine clinics such a result was not contemplated in this instance. Our objections to opening up clinics for chlorine treatment independently of a hospital were because we believe it to be a good policy for any branch of a municipal government to avoid, so far as possible, any scientific experimental work whatever, but to devote itself to the encouragement of experimentation by private agencies especially designed for such work. Experience has shown that when experimental work is being undertaken by allotments from public appropriations, the scientific conclusions may be influenced by the temptation to justify such an expenditure of public funds or unexpected problems or difficulties may develop which may suggest the advisability of finding a plausible excuse for a precipitate retreat from the field. There are also other practical reasons why the conduct of medical experiments by health departments are likely to produce unsatisfactory and mis-leading conclusions which will tend to discourage further experimentation by agencies well adapted to carry it on.

It is always a difficult matter to appraise the value of an alleged medical discovery. Those whose memory goes back to the time when diphtheria antitoxin was brought out will recall how im-

possible it was to tell from the confusing and contradictory statistical data produced by municipal health department experimentation, whether antitoxin was of any value or not. Anyone who attends hearings at the State House, this winter, before the Committee on Public Health, will see voluminous statistical data presented for the purpose of proving that smallpox vaccination is valueless. On the other hand, he will see witness upon witness appear before the committee and testify that after prolonged suffering from some disease which failed to yield to approved methods of medical treatment, he or she was promptly restored to perfect health by some alleged method of treatment whose claims to therapeutic value are utterly absurd. Moreover, one cannot fail to be impressed by the apparent good faith of such witnesses. Many distressing bodily conditions disappear, regardless of medical treatment. Then, too, definite physical benefit may result from the mental or psychic effect of some procedure which is entirely incapable of any direct physical effect on bodily tissues whatever. It is for such reasons as these that real medical progress calls for a different attitude toward claims of medical discoveries than is necessary in other matters also calling for scientific investigation.

The results obtained at the New York Health Department chlorine treatment clinics certainly did not justify their continuance at the expense of the taxpayers. Chlorine inhalations in any dilution and in any form or stage of a respiratory infection may be entirely worthless or even harmful, but for the following, as well as the foregoing reasons, it is to be regretted if the claims of Vedder and Sawyer are to be dismissed without further tests by competent agencies as to the action of diluted chlorine gas in respiratory infections.

Premature cardio-vascular degeneration, cancer, tuberculosis and acute respiratory infections constitute our most important health problems today. In economic importance, because of their indirect, as well as their direct consequences, acute respiratory infections are with us the most important of all. No excuse therefore need to be offered for the careful consideration of anything which gives promise of being able to prevent or alleviate respiratory infections.

Chlorine in the presence of moisture is an efficient bactericide and antiseptic.

The application of bactericides and antiseptics of various sorts to the respiratory mucous membrane forms a part of approved methods of treatment of respiratory infections.

The famous Carrel-Dankin solution and other preparations used in the treatment of infected wounds depend for their efficacy on the liberation of chlorine.

European experimenters have claimed beneficial effects from the inhalation of chlorine in tuberculosis. In destructive tuberculous lesions, there are usually to be found associated with the tubercle bacillus, streptococci and other organisms which are apparently responsible for the serious results of acute respiratory infections.

It has been stated without contradiction that none of the employees of the Chlorine Plant of the Edgewood Arsenal came down with the influenza during the great epidemic while the hospitals were filled with the sick from other parts of the arsenal.

Vedder and Sawyer who were led for the reason just stated to undertake their experiments with chlorine had already been identified with important work in medical research.

They are officers of the United States Army. Their work is subject to official supervision. Therefore their experiments with chlorine and the published results may be assumed to have the approval of their official superiors, including the surgeon general of the army. It is hardly conceivable that they would have been permitted to go as far as they have without having their work passed upon by a medical board of the army, which has at least found results to justify the continuance of the work.

The published results of the treatment by Vedder and Sawyer of over nine hundred cases of respiratory infections show definite evidence of beneficial results from such treatment. The evidence submitted by the New York Health Department was of a negative character. Negative evidence of this sort is of less value than positive evidence and it does not necessarily follow that chlorine is without therapeutic value in respiratory infections.

In the "Bulletin" of May it was stated that "the cure of a well-established 'cold in the head' or bronchitis, for example, involves something more than the killing of bacteria. It does not take long for infecting bacteria to produce damage to the mucous membrane which requires considerable time for nature to repair, even if the bacteria should all be destroyed." The question naturally arises if the different results shown by different experimenters may not be due to the character of the infection or the stage at which the treatment is given. Neither theory or experience would lead us to suppose that the inhalation of chlorine might relieve asthma, hay fever or other manifestations of protein sensitivity or alleviate inflammatory conditions of the nasal mucous membrane dependent on a chronic sinusitis, or cure an ingrowing toe nail.

Even assuming that the inhalation of chlorine gas may have a limited field of usefulness in certain infections of the respiratory tract, medical progress demands an answer to the question whether

something else, as some development in methods of applying ultra violet rays, for example, may not be really more practicable and more efficacious even in that field.

Because of the vogue which the chlorine treatment has acquired, it is extremely important to determine whether the indiscriminate use of chlorine gas in respiratory infections, even in its recommended dilution, may not be dangerous. Results have followed its administration tending to indicate that it may be harmful. The action of chlorine gas as a bactericide or disinfectant is due to the fact that in the presence of moisture it starts a chemical reaction, liberating oxygen, which unites with organic matter to oxidize or burn it. In a certain degree of concentration, chlorine gas is alike destructive to bacteria and diseased and healthy bodily tissue. In the treatment, as recommended by Vedder and Sawyer, harmful effects are supposed to be avoided by the small amount of chlorine in the air which is breathed. But is this so? The treatment produces a distinct irritation of normal tissue effecting even the eyes.

The killing or removal of harmful bacteria may be helpful to the natural process of overcoming infection but after all we are dependent on the vitality of living tissue, not only to overcome the effects of existing infection but perhaps even to protect the body against the introduction of some more dangerous infection. While local tissues are not alone involved in this matter of repair and protection and while local irritation or pain from a method of local treatment may not necessarily mean that the treatment may not prove eventually beneficial, nevertheless, evidence of irritation of the tissues following the inhalation of chlorine gas certainly justifies a suspicion of possibly harmful results. From our knowledge of the action of chlorine on living tissue, we are also justified in placing on those who recommend its use in respiratory infections the burden of proving that its inhalation, even in the dilution recommended, may not be dangerous.

THE UNITED STATES PUBLIC HEALTH SERVICE.

The United States Public Health Service has recently made public the following regarding its studies of influenza and the common cold.

The common cold is the most prevalent illness in the United States and apparently many such colds are quite contagious, says the surgeon general of the Public Health Service, few people failing to experience at least one attack during a twelve-month period, while many persons have three or more attacks during that time.

These facts are borne out by data recently secured by officers of the Public Health Service in an investigation of influenza and the minor respiratory diseases which they are conducting at the present time.

That large numbers of persons have colds each year is common knowledge but just what percentage of people, as a rule, have attacks and the average number of colds per person per year have not been known, as the disease is not required to be reported by law, and therefore the morbidity records do not show that information.

In a preliminary report of the investigation that is now in progress, the Public Health Service shows that among a fairly representative group of persons, only 10 per cent had no colds, while 90 per cent had one or more colds during a five and one half month period; the rate for the group as a whole for that period being 1.9 cold per person, or an annual rate of 3.7 cold per person should the same rate obtain throughout the year.

The cold was found to be the predominant form of respiratory attack. The relative frequency of symptoms was shown to be very much the same for all localities, and the epidemic outbreaks occurred apparently at about the same time of year in each locality. An outbreak of colds usually occurred in all localities in October, followed by a decline until the latter part of December, at which time another outbreak occurred.

It is now believed that there may be a closer correlation between the common cold and influenza than was formerly thought to exist. There seem to be cases of common cold and ordinary influenza which are almost indistinguishable clinically, and the bacteriological findings in the nose and throat of influenza sufferers and persons having a common cold are as far as the evidence goes practically the same. As a matter of fact, even in health the bacteria found in the minor respiratory diseases are nearly always present, which at once suggests that good resistance provided by physical fitness is an important line of defense, since a lowered vitality and lowered resistance favor infection. We cannot depend upon physical fitness alone, however, as robust persons may apparently contract a cold from an infected person.

The investigation now being undertaken by the Public Health Service is the first nation-wide study of influenza and colds ever made, and the final results are awaited with much interest, in the hope that further light will be shed on these affections which yearly cause much suffering, inconvenience, economic loss, and, in the case of influenza, even deaths, and which, as far as their cause and prevention are concerned, are still comparatively little understood.

REGULATIONS RELATIVE TO GRADE A MILK MADE BY THE DEPARTMENT OF PUBLIC HEALTH UNDER THE PROVISIONS OF CHAPTER 310 OF THE ACTS OF 1924.

Regulation 1.

Grade A milk shall be pasteurized within this Commonwealth, and shall be natural cow's milk not more than forty-eight hours old when pasteurized by heating for a period of not less than thirty minutes to a temperature of not less than 140 degrees Fahrenheit, nor more than 145 degrees Fahrenheit, and immediately thereafter cooled to a temperature of 50 degrees Fahrenheit or lower, and shall be kept at such temperature until delivered to the consumer, and when so delivered shall contain not more than 25,000 bacteria per cubic centimeter and not less than 4 per cent milk fat.

Regulation 2.

All milk intended to be ultimately sold as Grade A milk shall be produced at dairies receiving from the board of health of any town where such Grade A milk is intended to be sold, a permit to produce milk for that purpose. No such permit shall be granted, and any permit so granted shall be revoked by the board of health granting it, if the stable and milk room are not clean, if the cows are not healthy, if the cows' udders are not cleaned at milking time, if the cows are not milked with clean dry hands into small-top milk pails or with a clean milking machine, if the milk is not removed from the stable immediately after milking in the pails into which it was milked; if the milk is not quickly cooled to a temperature of 50 degrees Fahrenheit or less, and kept at such temperature until delivered; provided that, if the milk is shipped to the receiving station immediately after milking and before its temperature can be reduced to 50 degrees Fahrenheit, such milk may be used for Grade A milk if its temperature is quickly reduced at the receiving station to 50 degrees Fahrenheit or less.

Regulation 3.

Each person, firm or corporation pasteurizing Grade A milk shall not use for such purpose any milk more than forty-eight hours old, or any milk obtained from a dairy not having a permit required by Regulation 2, or any milk received at a temperature above 50 degrees Fahrenheit, except as provided in said regulation, or any milk containing more than 25,000 bacteria per cubic centimeter, and shall at least twice a month determine or cause to be determined the bacteria content of the milk of each such diary.

All records of bacteria counts made under the provisions of the regulation shall be kept for at least one year, and shall be open to inspection by all milk inspectors of cities or towns where the milk

is to be sold, and to all officers, inspectors, or other employees of the Department of Agriculture and the Department of Public Health.

REGULATION 4.

Each person, firm or corporation pasteurizing Grade A milk shall keep his plant and apparatus in a clean and sanitary condition, and shall cause all apparatus and utensils used in the pasteurization of milk to be cleaned at the close of each day's work and to be in a clean condition when next used.

All apparatus used in the pasteurization of Grade A milk shall be equipped with automatic recording thermometers approved by the Department of Public Health, and all temperature records obtained in the pasteurization of Grade A milk shall be kept on file for a period of not less than ninety (90) days.

REGULATION 5.

All bacteria counts shall be determined by the methods of the American Health Association. The accepted figure shall be the median of a series of not less than three or more than seven samples taken at approximately the same time.

All samples of Grade A milk taken from delivery vehicles of licensed milk dealers for the purpose of determining the bacterial content thereof, shall be taken from different containers intended for sale. If the samples so taken show upon examinations a higher bacterial content than is provided in these regulations, notice shall be sent to the person, firm or corporation from whom these samples were taken, and not less than five (5) days thereafter a second series of samples may be taken. If the examination of the second series shows a higher bacterial content than is provided in these regulations, notice shall be sent as provided herein and not less than three (3) days thereafter a third series of samples may be taken. It shall be considered a breach of these regulations should both the second and third series of samples exceed in bacterial content that provided therein.

REGULATION 6.

All bottled Grade A milk shall be covered with a cap and seal or such other covering device as will suitably protect the lip of the bottle from contamination. The cap shall state the day of the week upon which the milk was pasteurized, and shall also bear the words "Grade A Pasteurized."

This regulation shall become effective thirty (30) days after the previous regulations have become effective.

Approved in Council, November 19, 1924.

C. A. SOUTHWORTH,
Executive Secretary,
Governor and Council.

SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during November. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

Name of Dealer.	Milk Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company	12.51	3.65	26
Allen, Fred H.	12.81	3.87	12
Anderson, Oscar A.	12.64	3.86	23
Antetomasso, Peter	12.66	3.82	9
Barry, Michael F.	12.11	3.55	25
Barron, Clarence W.	14.26	5.20	44
Bemis, Henry E., Estate of	12.64	3.90	28
Bergmann, John H.	12.99	4.05	19
Bolio, William J.	12.73	4.20	36
Bowditch, E. F., Estate	12.36	3.70	10
Brandley, T. J., & Co.	12.78	3.92	23
Buxtom, William	12.32	3.40	9
Casey, James D.	13.32	4.05	52
Cashin, James F., Company	12.72	3.88	22
Cedar Hill Farm, Inc.	13.39	4.60	9
Chapin, George L.	12.38	3.67	16
Childs Brothers	12.14	3.55	28
Clapp, Frank L.	13.22	4.30	92
Clark, Levi	12.53	4.00	12
Cohen, Benjamin	13.15	4.15	44
Converse, Marquis M.	13.66	4.60	34
Corkery, John H.	12.34	3.63	36
Crowell, Raymond	12.48	3.76	44
Cummings, F. S., Company	12.28	3.72	12
Cunningham, Paul	13.11	4.10	40
Cusick, William H.	12.35	3.60	26
Deerfoot Farm Milk Company	12.69	4.00	12
Denehy, Timothy	12.95	4.37	48
Driscoll, William B., Company	12.56	3.80	10
Duggan Brothers	12.73	3.75	21
Edgerly, Erank S.	12.61	3.80	284
Elm Spring Farm Milk Company	12.57	3.80	25
English, John, & Son	13.00	4.10	50
Ferguson, Malcolm D.	12.50	3.75	408
Floyd Milk Company	12.67	3.85	14

Name of Dealer.	Milk Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Garfield, Mason	14.36	4.70	14
Garvin, Charles E	13.00	4.00	12
Giroux, J. E. & H. S	12.38	3.70	17
Griffin Brothers	12.80	3.98	42
Griffin, J. L	12.69	3.80	11
Gushee, W. S. & C. W	12.90	4.02	12
Hagar, J. M., & Sons	12.78	3.76	11
Hancock, T. G., Company	12.54	3.75	12
Herlihy Brothers	12.58	3.83	40
Hickey, Martin J	12.78	3.90	188
Holden, John E	12 48	3.80	77
Holland & Cosgrove	12.51	3.76	154
Hood, H. P., & Sons, Inc	12.68	3.80	17
Hutchinson, Frank T	11.92	3.40	28
Jones, William T., Company	12.68	3.87	14
Kendall Brothers Company	12.60	3.82	50
Kennedy, Robert, Jr	12.86	3.90	40
Kingston, Samuel	12.60	4.15	19
Klawa & Freeman	12.89	3.90	22
Knapp, George J	12.97	3.80	15
Kozlofsky, Fedora	12.65	3.70	14
Lang, Michael J	12.53	3.75	152
Larsson, Charles	12.69	3.65	17
Lincoln Farms, Inc	12.42	3.80	20
Lyndonville Creamery Association	12.68	3.60	15
Manning, Peter	12.15	3.62	92
Maple Farm Milk Company	12.46	3.75	46
McAdams, John F	12.33	3.60	39
McKernan, John	12.72	3.80	25
Moore, Peter	12.75	3.78	47
Munchbach, George	12.46	3.62	18
Newton & Pope	13.52	4.40	16
Noble, William F., & Sons	12.96	3.97	12
Raycraft, Benjamin F	12.82	3.82	16
Feeley, Catherine M	12.60	3.82	58
Robinson, A. J	12.63	3.85	26
Robinson, J. A	12.32	3.50	76
Runkle & Dean	13.20	4.25	34
Schuste, Adam J	12.31	3.57	16
Seven Oaks Dairy Company	12.55	3.81	26

Name of Dealer.	Milk. Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Shick, Jacob	12.68	3.92	364
Smith & Lynch	12.55	3.71	98
Somerset Farms Milk Company	13.27	4.25	10
Sterling Farms Milk Company	12.64	3.70	9
Stone, Howard L	12.08	3.60	8
Stuart, Wallis E	12.66	3.78	11
Sullivan, John D	12.59	3.83	32
Sullivan, John L	13.44	4.35	14
Turner Centre System, Inc	12.77	3.85	24
Vartanian, Gazar	12.27	3.65	350
Vartanian, Setrag	12.26	3.67	20
Walker Gordon Laboratory Company	12.77	4.20	10
Ware, George H	12.60	3.80	20
Weiler, E., & Sons	12.80	3.85	24
Werner, F., Company	12.81	3.97	248
Westwood Farm Milk Company	12.51	3.71	14
White Brothers	12.61	3.82	106
Whiting Milk Companies	12.17	3.58	233
Wittenberg & Recks	12.59	3.92	12
Whittemore, Warner D	12.60	3.90	18
Wiswall, Granville A	12.51	3.70	26
Woodland, Charles L	12.54	3.78	190

CHAIN STORE MILK.

Name of Dealer.	Supplied By.	Solids.	Fat.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.24	3.67	28
The Cloverdale Company	Turner Centre System, Inc.	12.50	3.75	41
Co-operative Grocery Company,	J. M. Hagar & Sons	12.76	3.87	28
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.60	3.85	12
Economy Grocery Company	Whiting Milk Companies	12.24	3.67	62
First National Stores	United Farmers Co-operative Creamery Company and Whiting Milk Companies.	12.83	4.00	10
Morgan Brothers Company	Morgan Brothers Company and Whiting Milk Companies.	12.70	3.95	118
M. O'Keeffe, Inc	J. M. Hagar & Sons, Inc.	12.65	3.75	32
Rose Tea Company	Whiting Milk Companies	12.05	3.57	406
M. Winer & Co	Hyman Winer	12.24	3.65	56

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF PULMONARY TUBERCULOSIS AND DATE OF DEATH, DURING NOVEMBER, 1924.

Classification.	Number.	Percentage.
	Nov.	Nov.
After death	7	19.44
Seven days or less	4	11.11
Eight to fourteen days, inclusive	—	—
Fifteen to twenty-one days, inclusive	1	2.78
Twenty-two to thirty-one days, inclusive	1	2.78
Within First Month	13	36.11
Within second month	2	5.56
Within third month	1	2.77
Within fourth month	3	8.33
Within fifth month	5	13.89
Within sixth month	—	—
Within seventh month	2	5.56
Within eighth month	1	2.78
Within ninth month	—	—
Within tenth month	1	2.78
Within eleventh month	—	—
Within twelfth month	—	—
Within First Year Preceding Death	28	77.78
Within second year	4	11.11
Within third year	1	2.78
More than three years	3	8.33
Totals	36	100.00

BUREAU OF CHEMISTRY TO INVESTIGATE REPORT OF TYPHOID FROM RAW OYSTERS.

Commenting on the press reports regarding cases of typhoid fever which are said to have occurred in New York and Chicago and which are believed to have been caused by the consumption of raw oysters, the officials of the Bureau of Chemistry, United States Department of Agriculture, charged with the enforcement of the federal food and drugs act, stated today that their knowledge of the typhoid situation is at present limited to the press reports but that immediate steps were taken following the publication of the items to secure authentic information from the health authorities of both New York and Chicago.

"At the opening of the oyster season very extensive investigations were made by the Bureau of Chemistry for the purpose of

ascertaining the sanitary character of the oysters which are being shipped in interstate commerce," said the food officials. "It is a recognized fact that sanitary precautions of a rigid character must be observed in the handling of oysters to preclude the possibility of pollution, and the investigation made in the early season was instituted for the purpose of making sure that such precautions were being observed.

"The most hearty co-operation was received from the state authorities of New York, Connecticut, Rhode Island, New Jersey, Delaware, Maryland and Virginia, which are the important oyster shipping states of the Atlantic seaboard. All of these states are enforcing regulations of such character as would appear to insure the wholesomeness of oysters shipped in interstate commerce. Whether, in spite of the precautions taken, there has been some negligence on the part of an individual shipper which has been responsible for outbreaks of typhoid, it is impossible to state until the information now being sought from the responsible health authorities in New York and Chicago is secured."

SUMMARY OF THE WORK, NOVEMBER 1, 1924.

BUREAU OF ADMINISTRATION.

	Nov.	Oct.
Hearings authorized	1	1
Prosecutions ordered	10	7
Legal notices	207	234
Forcible removals	1	2
Orders	0	1
Sundry machinery purchased	1	0

	Nov.	Oct.
Personnel:		
Temporary	3	1
Provisional	0	3
Permanent	4	3
Resignations	2	0
Leave of absence	0	3
Temporary employment extended	1	1
Promotions	0	7
Change of rating	2	0
Official visits authorized	0	7

LICENSES, PERMITS, ETC., ISSUED.

	Nov.	Oct.
Burial permits	1,019	992
Milk licenses	174	184
Pedlers' licenses granted,	0	50
Hen licenses granted	9	34
Stable hearing	1	1
Stable permits granted	2	0
Stable permits granted provisionally	2	1
Hen license refused	1	1
Poultry licenses granted,	9	34
Grease licenses granted,	0	5

	Nov.	Oct.
Undertakers' licenses renewed	1	1
Denatured alcohol licenses	14	5
Manicure-massage: Granted	76	70
Dumps approved	3	0
Dumps disapproved	2	0
Lying-in Hospitals license approved	3	6

BUREAU OF COMMUNICABLE DISEASES.

	Nov.	Oct.
Visits:		
By medical inspectors,	987	692
By veterinarian	157	145
By investigator	362	266
By nurses	3,460	1,881
Cases brought to Boston for treatment	82	90
Deaths investigated	35	20
Nurses' Schick activities,	8,547	9,434

	Nov.	Oct.
Medical inspector's activities:		
Schick tests	3,770	3,550
Schick readings	1,854	3,323
Toxin-antitoxin injections	2,923	2,561
Vaccinations	34	65
Antitoxin injections	10	11

MEDICAL DIVISION.

HEALTH UNIT (Blossom Street).

	Nov.
HEALTH DEPARTMENT:	
Work Performed by Medical Inspector:	
Visits made by medical inspector in the district	35
Vaccinations performed by medical inspector	29
Number of vaccination certificates issued	20
Antitoxin, antityphoid, Schick tests, and toxin-antitoxin administered	3
Number of children examined for camps and day nurseries	10
Dental Service:	
Number of operations	1,286
Number of dismissals	211
Number of children treated,	656
Nutrition Service:	
Number of conferences	11
Conference attendance	93
Number of home visits	167
Poster Classes:	
Number of classes	3
Attendance	63
Cooking Classes:	
Number of classes	4
Attendance	23
Nurses' Visits:	
Communicable disease visits by nurses in district	105
Miscellaneous:	
Complaints of insanitary conditions	15
Number of persons given health and other information	500
City visitors	25
Out of city visitors	15

	Nov.
Child Hygiene Division:	
Number of conferences	7
Conference attendance	323
New babies at conferences,	42
Home visits to babies	1,213
Children of school age examined	133
COMMUNITY HEALTH ASSOCIATION:	
General Division:	
Home visits by nurses	827
Posture Clinics:	
Number of clinics	9
Attendance	72
BOSTON DISPENSARY:	
Calls by district physician	34
BOSTON SANATORIUM:	
Calls made by nurses in the district	896
RED CROSS (Home Nursing Classes):	
Number of classes	5
Attendance	57
STATE DEPARTMENT MENTAL DISEASES:	
Habit Forming Clinic:	
Number of clinics	5
Attendance	25
Home visits	46

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, NOVEMBER 1, 1924.

SYPHILIS.

Current cases under investigation November 1, 1924	15
New cases assigned during the month	19
Total	34

DISPOSITION OF CASES.

Located:	
Placed under treatment	1
Under treatment	5
Not located:	
Search abandoned	12
Under investigation November 30, 1924	16
Total	34

GONORRHEA.

Current cases under investigation November 30, 1924	38
New cases assigned during the month	114
Total	152

DISPOSITION OF CASES.

Located:	
Under treatment	13
Placed under treatment	9
Further treatment unnecessary	3
Not Located:	
Search abandoned	47
Fraudulent use of name	0
Under investigation November 30, 1924	80
Total	152

SUMMARY.

Current cases under investigation November 1, 1924	53
New cases assigned during the month	133
Total	186

DISPOSITION OF CASES.

Located:	
Under treatment	14
Placed under treatment	14
Further treatment unnecessary	3
Not Located:	
Search abandoned	59
Fraudulent use of name	0
Under investigation November 30, 1924	96
Total	186

Form letters mailed to above patients	116
Form letters unclaimed returned from post office	35
Form letters accepted by patients	81
Venereal disease complaints:	
New cases	5
Under investigation November 1, 1924	13
Disposition of complaints:	
Placed under treatment	3
Under treatment	2
Unable to locate	0
Referred to Police Commissioner	0
No evidence of disease	1
Under investigation November 30, 1924	12
Visits by investigators	416

CHILD HYGIENE DIVISION.

	Nov.	Oct.
Total number of all visits	*9,850*	*11,480*
Visits to new cases	1,897	2,516
Visits to old cases	7,297	8,964
Ophthalmia cases:		
Visits by Child Hygiene Division	328	179
Infant mortality investigations	39	125
Maternal death investigations	59	61
Cooking classes	4	2
Poster classes	3	3
Baby Conference Stations attended	240	228
Nutritional Conference Stations attended	33	35
Instructive conferences attended	174	151
Special visits	8	9
Dietitian home visits	222	184
Children examined in Parochial Schools	133	

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Nov.	Oct.
New reports	3,488	4,327
Stores inspected	3,933	4,811
Sanitary defects remedied	155	151
Complaints at office	29	53
Referred to Sanitary Division	10	13
Milk applicants	103	141
Peddlers:		
Applications for licenses approved	38	5
Vehicles inspected and approved	451	552
Court cases	9	9
Convictions	3	5
Fines	$350	$240
Continued	6	1
Discharge	0	1
Filed	0	1

Laboratory Examinations:	Nov.	Oct.
Bacteriological	3	4
Chemical	1	5

CONDEMNATIONS.

Requested.		Not Requested.	
Candy	531 pounds	Liver	1
Beef	300 pounds	Lettuce	30 heads
Candy	7 pounds	Matzos	33,775 pounds
Cauliflower	70 heads	Mustard	71 jars
Celery	24 bunches	Mayonnaise	23 jars
Chicken	129½ pounds	Pork	11 pounds
Crackers	35 pounds	Potatoes	41,250 pounds
Deer	1	Poultry	55 pounds
Fowl	171 pounds	Racoon	13 pounds
Grapes	517 lugs	Sausages	1 pound
Grapes	31,350 pounds	Salt cod	19 pounds
Horseradish	17 bottles	Turkeys	816¾ pounds
Lamb	15 pounds		
Bass	100 pounds		

SAMPLES FOR ANALYSIS.

Bacteriological Laboratory.		Chemical Laboratory.	
Gelatine	1	Hair tonic	1
Cocoa	1		
Frankforts	1		

LIVE STOCK INSPECTION (Brighton Abattoir).

	Nov.	Oct.		Nov.	Oct.
Cattle inspected	450	743	Sheep inspected	0	2
Calves inspected	1,434	1,489	Parts condemned (lbs.)	4,163	7,258
Swine inspected	4,455	4,743	Animals condemned	6,339	6,977

DAIRY DIVISION.

	Nov.	Oct.		Nov.	Oct.
Total inspections	1,044	1,090	Inspection of milk plants and licensed dealers	368	331
Dairies inspected	474	672	Bacteriological examinations	154	47
Scoring above 50 *	312	418	High bacterial counts investigated	23	14
Scoring below	162	254	Country creamery inspections	12	16
With milk rooms	298	394			
Without milk rooms	176	278			
Inactive	13	10			
Total cattle inspected	6,992	9,890			

* Passable mark.

BUREAU OF MILK INSPECTION.

	Nov.	Oct.		Nov.	Oct.
Chemical inspection of:			Ice cream	0	209
Milk	1,231	1,514	Whiskey	3	0
Vinegar	198	172	Bottles	84	88
Ice cream	84	1	Caps	84	0
Bacteriological examination of:			Court cases	24	21
Milk	497	544	Fines	$415	$730

SANITARY INSPECTION.

	Nov.	Oct.		Nov.	Oct.
Original inspections	1,488	2,043	Complaints	468	718
New reports	1,886	2,766	Court cases	5	7
Reinspections	6,386	7,407	Fines	$150	0
Legal notices served	152	202			

BACTERIOLOGICAL LABORATORY.

	Nov.	Oct.
Diphtheria	1,269	1,315
Tuberculosis	268	280
Typhoid	43	56
Gonorrhea	699	680
Gonorrheal ophthalmia	47	60
Syphilis	1,317	1,627
* Other examinations	19	10
Bacteriological examinations of milk	497	544
Bacteriological examinations of ice cream	93	209

* Malaria 10; dark field examinations, 1; smears for virulence, 1; urine for typhoid, 1; feces for typhoid, 1; dog for rabies, 1; paratyphoids, 4.

DAIRY BUILDINGS.

Production of clean milk is most readily accomplished in satisfactory buildings. Such buildings, to the producer, are a stimulus in his work, from both a sanitary and an economic viewpoint.

Those entrusted with the enforcement of sanitary codes oftentimes are met with the cost factor when discussing buildings with milk producers. This is especially true in the case of farmers who are about to start or have recently started producing milk. The cost of new buildings is also a major factor in old established dairy communities. Rather than erect new structures, old and unsatisfactory ones are made to answer the purpose. Under such conditions, the milk inspector finds difficulty in having good dairy barns and milk houses erected, for the idea generally prevailing among farmers is that the cost of satisfactory buildings is almost prohibitive.

If dairy inspectors can show these men that the cost of erecting a good barn and milk house is not high, an improvement in conditions is likely to result.

Barns which meet the requirements of milk regulations need not be costly. The farmer is usually able, with the hiring of a small amount of labor, to erect his own building. If the inspector can be of assistance in planning and directing the work to a certain extent, so much the better. Expensive materials need not be used. Further-

more, a simply arranged and planned barn is cheaper to build, and is as satisfactory from a sanitary standpoint as one of intricate design.

Milk houses are very essential. In many cases little care is given to this matter. A good milk house, properly constructed and meeting all requirements set down by milk ordinances, can be easily and cheaply constructed.

Inspectors can make these facts known to dairy farmers, and great good may result if the inspector takes an active part in planning and erecting proper dairy buildings.

The following bulletins published by the U. S. Department of Agriculture should be of assistance to those contemplating the erection of dairy buildings.

Farmers' Bulletin 1214 — Farm Dairy Houses.

Farmers' Bulletin 1342 — Dairy-Barn Construction.

Farmers' Bulletin 1393 — Principles of Dairy-Barn Ventilation.

Farmers' Bulletin 855 — Homemade Silos.

THE FIRST MEDICAL JOURNALS.

In an article written by Leartus Connor, M.D., and printed in the *Journal of the American Medical Association*, June 14, 1884, it is stated that the first medical journal published was issued at Paris, France, in 1679. It was edited by Nicholas de Blegny, "who seems to have been 'a good bit of a charlatan.'" The first medical journal printed in the United States was in the nature of a translation of the *Journal de Medicine Militaire* issued in Paris from 1782-88. This appeared in New York about 1790.

The first strictly American medical journal, according to Connor, was *The Medical Repository*, a quarterly, edited by S. L. Mitchell, Edward Miller and E. H. Smith, and published in New York, 1797–1824. The *Philadelphia Medical Museum*, the second American journal, came into existence in 1804 and retired from the field after a career of seven years. This was edited by Dr. —. —. Coxe. Baltimore was the home of the third medical journal of the United States, the *Baltimore Medical and Physical Recorder*, 1808–09. Dr. Tobias Watkins was its editor. Medical journalism in Boston began with the *New England Journal of Medicine and Surgery*, 1812–27. This was a quarterly and in 1828 was consolidated with the *Boston Medical Intelligencer*. This combination established the *Boston Medical and Surgical Journal*, which is still in existence and is now published by the Massachusetts Medical Society under the editorship of Dr. W. P. Bowers. (*Journal Amer. Med. Ass'n.*)

VITAL STATISTICS, NOVEMBER, 1924.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING NOVEMBER, 1924, WITH COMPARATIVE FIGURES FOR NOVEMBER, 1923.

	BIRTHS AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
All Causes:						
Total deaths	869	846	+23	13.42	13.18	+.24
Nonresidents deducted	715	694	+21	11.04	10.81	+.23
By Age:						
Under one year	107	126	—19	1.65	1.96	—.31
One year to four years, inclusive	33	34	—1	.51	.53	—.02
Sixty years and over	351	324	+27	5.42	5.05	+.37
By Special Causes:						
Degenerative Diseases, So Called:						
Apoplexy	63	64	—1	.97	1.00	—.03
Arteriosclerosis	34	30	+4	.52	.47	+.05
Heart disease	158	144	+14	2.44	2.24	+.20
Nephritis, chronic	49	40	+9	.76	.62	+.14
Infant and Maternal Mortality:						
a. Total registered live births	1,425	1,515	—90	22.01	23.60	—1.59
b. Registered stillbirths	44	53	—9	.68	.82	—.14
Stillbirths per 1,000 births and stillbirths	.....	.....	.....	29.95	33.80	—3.85
c. Deaths of mothers from causes incident to childbirth	10	11	—1	.15	.17	—.02
Deaths of mothers per 1,000 births and stillbirths	.....	.....	.....	6.81	7.01	—.20
Deaths of children in first year of life	107	126	—19	1.65	1.96	—.31
Deaths in first year per 1,000 live births,	.....	.....	.....	72.84	83.17	—10.33
Violence:						
Accidents	49	57	—8	.76	.89	—.13
Homicides	2	4	—2	.03	.06	—.03
Suicides	9	11	—2	.14	.17	—.03
Miscellaneous:						
Alcoholism, acute or chronic	21	19	+2	.32	.29	+.03
Broncho-pneumonia	42	41	+1	.65	.64	+.01
Cancer	93	91	+2	1.44	1.42	+.02
Cirrhosis of the liver	4	6	—2	.06	.09	—.03
Diabetes mellitus	12	13	—1	.18	.20	—.02
Diarrheal diseases, children under two years of age	15	10	+5	.23	.15	+.08

	CASES AND DEATHS.					
	Actual Number.			Rate per 1,000 Population, Except Where Otherwise Specified.		
	1924.	1923.	Increase or Decrease.	1924.	1923.	Increase or Decrease.
Communicable Diseases:						
Anterior poliomyelitis.....Cases..	4	12	—8	.06	.19	—.13
Deaths.	—	1	—1	—	.015	—.015
Cerebro-spinal meningitis.....Cases..	—	1	—1	—	.015	—.015
Deaths.	—	1	—1	—	.015	—.015
Diphtheria.....Cases..	156	317	—161	2.41	4.94	—2.53
Deaths.	11	15	—4	.17	.23	—.06
Influenza.....Cases..	19	6	+13	.29	.09	+.20
Deaths.	4	3	+1	.06	.05	+.01
Measles.....Cases..	140	170	—30	2.16	2.65	—.49
Deaths.	6	—	+6	.09	—	+.09
Pneumonia (lobar).....Cases..	130	97	+33	2.01	1.51	+.50
Deaths.	32	32	—	.49	.50	—.01
Scarlet fever.....Cases..	229	319	—90	3.54	4.97	—1.43
Deaths.	4	1	+3	.06	.015	+04
Tuberculosis (pulmonary).....Cases..	112	138	—26	1.73	2.15	—.42
Deaths.	37	49	—12	.57	.76	—.19
Tuberculosis (other forms).....Cases..	24	24	—	.37	.37	—
Deaths.	8	5	+3	.12	.08	+.04
Typhoid fever.....Cases..	8	7	+1	.12	.11	+.01
Deaths.	—	2	—2	—	.03	—.03
Whooping cough.....Cases..	52	33	+19	.80	.51	+.29
Deaths.	3	—	+3	.05	—	+.05

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births, per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1924 (mid-year), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this Bulletin give it to someone else.

TO PHYSICIANS.

Have you attended any births during the calendar year 1924, or any previous year, wherein you failed to make a return of the birth to the City Registrar?

Birth registration is of vital importance both for its value to the child and its parents, and for the record of your city in its standing among the cities of the country and the world with respect to its infant mortality rate.

FULL BIRTH REGISTRATION INSURES A LOWER INFANT MORTALITY.

Look over your records and report to the City Registrar any births you have thus failed to report this year.

Please give this matter your immediate attention.

MASSACHUSETTS LAWS RELATING TO REPORTING OF BIRTHS, DISEASES AND DEATHS.

An Act Relative to Reports and Records of Births. (Acts of 1912, Chapter 280.)

Physicians and midwives shall within forty-eight hours after the birth of every child in cases of which they were in charge, mail or deliver to the clerk or the registrar of the city or town in which the birth occurred a notice stating the date and place of birth, giving the street number, if any, the number of the ward in a city and the family name. Failure to mail or deliver the said notice shall be punished by a fine not exceeding twenty-five dollars for each offense.

DEC 23 192